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Bilidikar, Sheela. 2042: (with Patil, G. P.) Identifiability of countable mixtures of discrete probability distributions using methods of infinite matrices. 8544: (with Patil, G. P.) On minimum variance unbiased estimation for the logarithmic series distribution.

Bilinski, Stanisław. 8267: Eine Interpretation der ebenen hyperbolischen Geometrie in der projektiven Geometrie der Geraden.

Bil'man, B. M. 8233: (with Mihailov, L. G.) Conditions for complete continuity of operators with a singularity of the type of a homogeneous function of first degree.

Bilousova, V. P. 1931: (with Paškuriat, N. Ī.) On a property of the rotation field and its consequences. 1932: (with Šimokin', P. L.) Certain problems of the theory of infinitesimal bendings of higher orders.

Biluta, P. A. 2869: Extremal quasiconformal mappings for arbitrary plane regions.

Bing, R. H. 3510: Challenging conjectures. 6743: Improving the intersections of lines and surfaces. 6741: (with Armentrout, Steve) A toroidal decomposition of  $E^3$ . See also Topology seminar, Wisconsin, 1965, #1974.

Bingen, Franz. 248: Géométrie projective sur un anneau semi-primaire.

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Binz, Ernst. 8144: Ein Differenzierbarkeitsbegriff in limitierten Vektorräumen. 6706: (with Keller, H. H.) Funktionenräume in der Kategorie der Limesräume.

Birch, B. J. 2535: Multiplicative functions with non-decreasing normal order. 7451: (with McCann, K.) A criterion for the  $p$ -adic solvability of diophantine equations. 1263: (with Stephens, N. M.) The parity of the rank of the Mordell-Weil group.

Birger, E. S. 1624: (with Ljajikova, N. B.) On determining the solutions of certain systems of ordinary differential equations with a given condition at infinity. II.

Biruk, George. 666: (with Coddington, Earl A.) Normal extensions of unbounded formally normal operators.

Birjukov, A. P. 1422: Solvability of the problem of isomorphism for finitely defined commutative semigroups with two generators. 1423: Solution of certain algorithmic problems for finitely determined commutative semigroups.

Birjukova, F. G. 7996: Solution of the heat equation in a rectangle with mixed boundary conditions. 7997: (with Kim, E. L.) The first boundary value problem for the heat equation in a rectangle with a discontinuous coefficient.

Birkhoff, Garrett. 5051: Local spline approximation by moments.

Bilij, V. I. 538a: Inequalities for derivatives of fractional positive order of polynomials given in domains with angles. 538b: Local structure properties of certain classes of analytic functions given in domains with angles.

3800: (with Lynch, Robert E.) Numerical solution of the telegraph and related equations. 3773: (with de Boor, C.; Swartz, B. and Wendorff, B.) Rayleigh-Ritz approximation by piecewise cubic polynomials.

Birkhoff, A. 4748: On generalized power methods of limitation. 6375: On the problem of perfectness of the power methods of limitation.

Birman, M. Š. 637: (with Krein, M. G.) Some topics of the theory of the wave and scattering operators. *See also* Problems of mathematical physics, #2303.

Birtel, Frank. 1873: (with Dubinsky, Ed) Bounded analytic functions of two complex variables.

Bishop, Errett. 369: Differentiable manifolds in complex Euclidean space.

Bisacchi, G. 8754: (with Fronsdal, C.) Unitary representations and relativistic coupling coefficients for  $SL_{2,c}$ .

Bisarina, L. P. 4855: Existence of a periodic solution of an integro-differential equation.

Bitay, L. 4975: The theorem of Stewart in the hyperbolic plane.

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Bittner, Leonhard. *See* Krasnosel'skii, M. A.; Perov, A. I.; Povoloskii, A. I. and Zabreiko, P. P., #1995.

Björhammar, Arne. 5504: A new theory of geodetic gravity.

Björk, Göran. 3054: Linear partial differential operators and generalized distributions.

Bamber, Maurice. 2841: Sur l'existence de points singuliers "quasi-réguliers" pour les fonctions analytiques. 6038: Extensions par voie somatique d'une propriété de type algorithmique de la théorie des singularités des fonctions analytiques.

Blank, Ja. P. 1948: (with Motornyi, L. T.) The problem of W. Blaschke on surfaces of quasitransfer and their connection with kinematics on the plane.

Blankenbecler, R. 5420: (with Sugar, R.) Variational upper and lower bounds for multichannel scattering.

Blaquière, A. 8829: Stabilité des systèmes: Deuxième méthode de Liapounov.

Blaschke, Wilhelm. *See* Reichardt, Hans, #1150.

Bielecki, R. 1989: (with Mrówka, S.) On the extensions of continuous functions from dense subspaces.

Bleicher, M. N. 2503: (with Schneider, H.) Completions of partially ordered sets and universal algebras.

Bliestein, Norman. 4778: Uniform asymptotic expansions of integrals with stationary point near algebraic singularity.

van der Blij, F. 7603: Introduction à l'algèbre homologique.

Blidevskii, V. S. 4645: Solution of the Cauchy problem for a quasilinear partial differential equation of the first order. I. 4646: Solution of the Cauchy problem for a quasilinear partial differential equation of the first order. II.

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Bloch, Daniel. 5195: A note on the estimation of the location parameter of the Cauchy distribution.

Blood, F. A., Jr. 2303: The  $r$ -particle distribution function in classical physics.

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Blum, J. R. 4450: (with Friedman, N.) On roots of transformations. 4451: (with Friedman, N.) On commuting transformations and roots. 5243: (with Rosenblatt, Judah) On some statistical problems requiring purely sequential sampling schemes.

Blum, Richard. 3445: A remarkable class of Mannheim-curves.

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Boas, R. P., Jr. 4789: Fourier series with positive coefficients. 5822: Lipschitz behavior and integrability of characteristic functions.

2844: (with Schoenfeld, Lowell) Indefinite integration by residues.

Boblik, O. I. 445: On the stability of systems of differential equations with small parameters.

Bobisud, Larry. 1665: Degeneration of the solutions of certain well-posed systems of partial differential equations depending on a small parameter. 6298: On a class of partial differential equations with time lag. 7971: Speed of energy propagation for parabolic equations.

Bobkov, V. V. 7635: The method of integral relations applied to the solution of the Goursat problem for a system of two equations of the first order. 2204: (with Krylov, V. I.) The method for integral relations for equations and systems of hyperbolic type. 8653: (with Krylov, V. I.) On a certain computing scheme for the method of integral relations for a hyperbolic equation. 968: (with Liskovets, O. A.) Exact estimates in the Rothe method.

Boček, I. A. 5254: Calculation of the Ritz-Galerkin coefficients by the Monte Carlo method.

Bochenek, J. 490: On a modification of a theorem of O. Olejnik and on its applications. 1731: On an oscillation problem for self-adjoint elliptic equation.

Bochmann, Dieter. 8882: Über Ableitungen in der Schaltalgebra und einen damit formulierbaren Entwicklungssatz.

Bodille, G. P. 1946: (with Šerbakov, R. N.) On the projective-differential geometry of a complex of straight lines.

Bočina, L. P. 6671: (with Ignatenkov, V. I.) Theory of curves in  $n$ -dimensional non-Euclidean spaces.

Bock, R. Darrell. 5218: (with Burgmann, Rolf E.) Analysis of covariance structures.

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Bogolubov, N. N., Jr. 7167: On model dynamical systems in statistical mechanics.

Bogolubov, N. N., Jr. *See* Bogolubov, N. N., Jr.

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Boh, Ivan. 5636: Propositional connectives, supposition, and consequence in Paul of Pergola.

Bohl, Erich. 6998: Über die Anwendbarkeit einiger Fehlerabschätzungen bei linearen Operatorgleichungen.

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Böhm, A. 7154: Some problems of symmetry breaking.

Böhm, D. 8736: (with Bub, J.) A proposed solution of the measurement problem in quantum mechanics by a hidden variable theory. 8737: (with Bub, J.) A refutation of the proof by Jauch and Piron that hidden variables can be excluded in quantum mechanics.

Böhm, Wolfgang. 3415: Achtfachgefüge und Satz von Ivory.

Beillat, Guy. 8730: Trajectoires de particules dans des champs hyperboliques: Champs absous électrodynamiques.

Bojanic, R. *See* Bojanic, Ranko.

Bojanic, Ranko. 3197: (with Tomic, Miodrag) Absolute convergence of Fourier series with small gaps.

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Bojarčuk, O. K. 2188: The application of homogeneous difference schemes to the solution of boundary value problems for a differential equation of fourth order. 3791: Homogeneous difference schemes on irregular nets for a system of differential equations of fourth order with discontinuous coefficients. 8646: On difference schemes for a differential equation of the fourth order with discontinuous coefficients.

Bojarski, B. 7112: Subsonic flow of compressible fluid.

Bokk, A. A. 4439: (with Klement'ev, Z. I.) On the theory of vector valued measures. 4440: (with Klement'ev, Z. I.) Representation of an abstract set function in the form of a Bochner integral. 6020a: (with Klement'ev, Z. I.) A generalization of the Radon-Nikodým theorem.

Bol'der, H. 182: On the tensor product of linear mappings.

Bollohás, B. 2486: On graphs with at most three independent paths connecting any two vertices. 3429: Star-domains. 4989: A generalization of a theorem of Habicht and van der Waerden. 5677: On a conjecture of Erdős, Hajnal and Moon.

Bolonkin, A. A. 5535: A method for the solution of optimal problems.

Bol'ev, L. N. 8537: On a characterization of the Poisson distribution and its statistical applications. *See also* Kelley, Truman Lee, #5183 and Owen, D. B., #8530.

Boltjanskil, V. G. 7230: Mathematical methods of optimal control. 8401: On the fundamental concepts of algebraic topology. 6631: (with Gohberg, I. C.) Theorems and problems in combinatorial geometry. 5718: (with Antonovskii, M. Ja. and Sarymsakov, T. A.) Topological Boolean algebras.

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Bompiani, Enrico. 4999: Dopo cinquant'anni dall'inizio della geometria proiettiva differenziale secondo G. Fubini. 8282: Sulla geometria differenziale degli spazi vettoriali.

Bond, James W. 2641: Weak minimal generating set reduction theorems for associative and Lie algebras.

Bondarenko, P. S. 3811: On the choice of round-off errors in solutions of difference equations by a convergent iteration method. 4584: Continuous dependence on the initial conditions of a solution of a system of ordinary differential equations. 7036: On a class of numerical algorithms for the approximate solution of boundary value problems for differential equations by the method of finite differences. 7053: Computation algorithms for approximate solution of operator equations.

Bondy, J. A. 3958: (with Welsh, D. J. A.) A note on the monomer dimer problem.

Bonera, Piero. 4974: Dei sistemi lineari di quadriche di  $S$ , a matrice jacobiana nulla identicamente. I.

Bonham, R. A. 4563: On some properties of the integrals  $\int_0^1 P_{2n}(t) \sin xt dt$  and  $\int_0^1 P_{2n+1}(t) \cos xt dt$ .

Bonnard, M. 8360: Quelques remarques sur l'extension à d'Alexandrov.

Bonnor, W. B. 5475: Multipole fields in linearized general relativity.

Bonsai, F. F. 4982: Compact linear operators from an algebraic standpoint. 4929: (with Duncan, J.) Dual representations of Banach algebras.

Bony, Jean-Michel. 5150a: (with Courrèges, Philippe and Priouret, Pierre) Sur la forme intégrale-différentielle du générateur infinitésimal d'un semi-groupe de Feller sur une variété différentiable. 5150b: (with Courrèges, Philippe and Priouret, Pierre) Solutions Höldériennes de problèmes aux limites intégrale-différentiels elliptiques donnant lieu au principe du maximum.

Boone, William W. 1381: Word problems and recursively enumerable degrees of unsolvability. A first paper on Thue systems. 1382: Word problems and recursively enumerable degrees of unsolvability. A sequel on finitely presented groups.

de Boor, Carl. 3159: (with Lynch, Robert E.) On splines and their minimum properties. 3773: (with Birkhoff, G.; Swartz, B. and Wendroff, B.) Rayleigh-Ritz approximation by piecewise cubic polynomials.

Boot, John C. G. 7211:  $\star$ Quadratic programming. Algorithms, anomalies, applications.

Bopp, Fritz. 3907: Kanonische Quantisierung einer regularisierten Wellengleichung bei neuer Antiteilchenvorstellung. 8169: Regularisierung Deltafunktionen.

Borel, Armand. 2578: Some finiteness properties of adele groups over number fields. 4371: Linear algebraic groups. 4372: Reduction theory for arithmetic groups. 5824: Density and maximality of arithmetic subgroups. 7465: Introduction to automorphic forms. 5823: (with Springer, T. A.) Rationality properties of linear algebraic groups. 7527: (with Tita, Jacques) Groupes réductifs. 1278: (with Chowla, S.; Herz, C. S.; Iwasawa, K. and Serre, J.-P.)  $\star$ Seminar on complex multiplication. *See also* Hirzebruch, F., #2573 and American Mathematical Society, Symposia in Pure Mathematics, #2381.

Borevič, Z. I. 5901: The multiplicative group of cyclic  $p$ -extensions of a local field. 5802: The multiplicative group of cyclic  $p$ -extensions of a local field. II. 5804: On the group of principal units of a normal  $p$ -extension of a regular local field. 5805: (with Faddeev, D. K.) Representations of orders with cyclic index. 5734: (with Šafarevič, I. R.)  $\star$ Théorie des nombres. 5803: (with Skopin, A. I.) Extensions of a local field with a normal basis for principal units.

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Borges, Rudolf. 6823: A characterization of the normal distribution. A note on a paper of Kosin. 8468: Zur Existenz von separablen stochastischen Prozessen. 8873: Zur Herleitung der Shannonschen Information.

Borges Vieira, L. R. 3022: Theory of associated systems for study of the stability in the large (continued).

Borgman, Leon E. 5382: Random hydrodynamic forces on objects.

Borillo, Mario. 7384: Une méthode de triangulation par blocs des matrices.

Borisov, A. P. 7877: Problems concerned with the number of limiting cycles arising in a system of differential equations with discontinuous right-hand sides.

Borisov, G. A. 506: On a certain boundary value problem for the Tricomi equation.

Borisov, Ju. F. 777: A half-neighborhood and the variation of length of a curve on a surface.

Borisova, S. Ju. 8136: The asymptotic representation of the solution of a boundary-value problem for an integro-differential equation with a small parameter multiplying the derivatives of highest order.

Borneanu, George. 6622: Contributions to the topological study of curves of order five.

Borek, V. M. 1683: (with Žitomirskii, Ja. I.) The Cauchy problem for equations of odd order which are correct in the sense of I. G. Petrovskii.

Borevoc', G. M. 1945: (with Kovancov, M. I. and Ljubarev', N. M.) On the theory of ruled manifolds in a biaxial space of a surface.

Borovikov, V. A. 3881: Diffraction of a plane wave on a segment. 7974: On a uniqueness theorem for a parabolic system of equations.

Borovkov, A. A. 2059: Certain limit theorems for distribution of functionals of processes asymptotically close to Markov processes.

Borrelli, Robert L. 3870: The singular, second order oblique derivative problem.

Borg, C. I. 3845: Déformations planes dans les corps anisotropes.

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Borsuk, Karol. 796: On embedding curves in surfaces.

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Bordvka, O. 1595: Über die allgemeinen Dispersionen der linearen Differentialgleichungen 2. Ordnung. 6647: Sur une application géométrique des dispersions contraires des équations différentielles linéaires du deuxième ordre.

Borwein, D. 4755: On a generalised Cesàro summability method of integral order. 8630: On a method of summability equivalent to the Cesàro method.

Borsymowski, Andrzej. 359: On certain properties of derivatives of the potential of double layer in the theory of the heat equation.

Bos, Werner. 3554: Über die Verbindbarkeit von verdeckbaren  $(n-1)$ -Zellen in topologischen  $n$ -Mannigfaltigkeiten. 6029: Der Schinkenbrötchensatz. 7594: Über die Graphen der einfachen Lie-Algebren.

Bosák, Juraj. 1269: (with Kotzig, Anton and Znám, Štefan) Modification of semi-completeness for integer sequences.

Bosanquet, L. S. 2589: An inequality for sequence transformations.

Bose, Anil Kumar. 4518: Functions satisfying a weighted average property. II.

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Bose, S. K. 8762: Generalized nonet representation of  $SU(3) \otimes SU(3)$  and its applications.

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Boswell, M. T. 2138: Estimating and testing trend in a stochastic process of Poisson type.

Botella Raduan, F. 810: Cohomology of forms over a generalized variety.

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Bothe, H. G. 798: Die meisten Bogen sind wild.

Bouc, Robert. 991: Solution périodique de l'équation de la "ferro-résonance" avec hystérésis.

Boudarel, R. 8854: Commande numérique optimale des processus.

Bouligand, Georges. 1540: Cas anormaux dans le problème de la densité d'énergie.

Bourbaki, N. 2425: ★Éléments de mathématique. Fascicule XXII. Livre I: Théorie des ensembles. Chapitre 4: Structures. 3277: ★Éléments de mathématique. Fasc. XV. Livre V: Espaces vectoriels topologiques. Chapitre I: Espaces vectoriels topologiques sur un corps valué. Chapitre II: Ensembles convexes et espaces localement convexes. 5044a: ★Elements of mathematics. General topology. Part 1. 5044b: ★Elements of mathematics. General topology. Part 2. 7356: ★Éléments de mathématique. Fasc. XVII. Livre I: Théorie des ensembles. Chapitre I: Description de la mathématique formelle. Chapitre II: Théorie des ensembles. See also Mathematica Seminar, #2388, #2389 and Séminaire Bourbaki: Vol. 1965/1966, Exp. 205-312, #5005.

Bourgin, D. G. 3572: Multiplicity of solutions in frame mappings. 5088: Multiplicity of solutions in frame mappings. II.

Boursin, J. L. 2036: Sur quelques problèmes de géométrie aléatoire.

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Boyce, William E. 4635: Stochastic nonhomogeneous Sturm-Liouville problems.

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Brander, O. 8749: An asymptotic expansion for the Green's function of nonrelativistic potential-scattering theory and the asymptotic character of the Born series for the Jost function for large complex angular momenta. 8750: Erratum: "An asymptotic expansion for the Green's function of nonrelativistic potential-scattering theory and the asymptotic character of the Born series for the Jost function for large complex angular momentum".

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Brauer, Fred. 1596: The solution of non-homogeneous systems of differential equations by undetermined coefficients. 3034: Perturbations of nonlinear systems of differential equations. II.

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Braun, Hel. 4310: (with Koecher, Max) ★Jordan-Algebren.

Brauner, Heinrich. 1903: Geometrie des zweifach isotropen Raumes. I. Bewegungen und kugeltreue Transformationen.

Braverman, E. M. 4044: On the method of potential functions.

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Eastham, M. S. P. 1728: A short proof of a theorem in eigenfunction theory. 3136: A condition for the spectrum in eigenfunction theory to contain  $[0, \infty)$ .

Eaton, Morris L. 2038: Characterization of distributions by the identical distribution of linear forms. 5238: Some optimum properties of ranking procedures.

Eberhard, Walter. 1787: Über Summierbarkeitsfragen bei verallgemeinerten Fourier-Reihen.

Eckhaus, W. 6283: (with de Jager, E. M.) Asymptotic solutions of singular perturbation problems for linear differential equations of elliptic type. 8732: (with Trad, A. T.) Sur l'influence de l'épaisseur dans le problème de diffraction de Sommerfeld.

Edelen, Dominic G. B. 3975: On the existence and uniqueness of intrinsic energy in general relativity. 3981: Galactic morphology and scale. 8345: Abelian groups of hypersurfaces. I. Representation and decomposition. 8346: Abelian groups of hypersurfaces. II. Critical points. 8347: Abelian groups of hypersurfaces. III. Local geometric structure.

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Edelstein, Michael. 3278: Farthest points of sets in uniformly convex Banach spaces.

Eden, Murray. 4100: On a relation between labeled graphs and permutations.

Eden, R. J. 3897: (with Landshoff, P. V.; Olive, D. I. and Polkinghorne, J. C.)  $\star$ The analytic  $S$ -matrix.

Edgar, Hugh M. 4196: Classes of equations of the type  $y^2 = x^3 + k$  having no rational solutions.

Edge, W. L. 8270: A canonical curve of genus 7.

Edmunds, D. E. 643: Non-linear functional equations in locally convex spaces.

Edwards, C. H., Jr. 1997: Taming 2-complexes in high-dimensional manifolds.

Edwards, R. E. 564: Changing signs of Fourier coefficients. 3225: Supports and singular supports of pseudomeasures. 6542: (with Brainerd, B.) Linear operators which commute with translations. I. Representation theorems. 6543: (with Brainerd, B.) Linear operators which commute with translations. II. Applications of the representation theorems.

ver Eecke, Paul. *See* Ver Eecke, Paul.

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Effros, Edward G. 3287: Structure in simplexes. 6550: (with Sternmer, Erling) Jordan algebras of self-adjoint operators.

Efimov, A. V. 3187: Best approximations of classes of periodic functions by trigonometric polynomials.

Efimov, B. A. 1979: Dyadic bicomplexa.

Efimov, N. V. 1934: Surfaces with negative curvature. 1066: Surfaces with slowly varying negative curvature.

Efimova, N. S. 544: Double asymptotic expansions.

Efron, Bradley. 6820: The convex hull of a random set of points. 5125: (with Cover, Thomas M.) Geometrical probability and random points on a hypersphere.

Eggleston, H. G. 583: Sets of constant width in finite dimensional Banach spaces.

Egorov, A. I. 7244: Conditions for optimality of systems containing links with distributed parameters.

Egorov, I. P. 1958: Motions and homotheties in Riemannian spaces. 2941: On a certain class of kernel functions.

Egorov, Ju. V. 2352: The problems of optimal control and partial differential equations. 3078: Hypoelliptic pseudodifferential operators. 7941: On pseudo-differential operators of the principal type. 4668: (with Kondrat'ev, V. A.) On an oblique derivative problem. 7950: (with Kondrat'ev, V. A.) Existence of a solution to a problem with oblique derivative. *See also* Bers, Lipman; John, Fritz and Schechter, Martin, #7931.

Egorov, V. G. 1600: Singular points of systems of equations in total differentials.

Ehlers, Jurgen. 7190: Generalized electromagnetic null fields and geometrical optics. 3962: (with Rindler, Wolfgang and Robinson, Ivor) Quaternions, bivectors, and the Lorentz group.

Ehlich, Hartmut. 6404: Polynome zwischen Gitterpunkten. 7057: Untersuchungen zur numerischen Fourieranalyse. 6394: (with Zeller, Karl) Numerische Abschätzung von Polynomen.

Ehrenpreis, Leon. *See* Vladimirov, Vasilii Sergeevi, #1551.

Ehresmann, Charles. 2653: Catégorie quotient d'une catégorie par une sous-catégorie. 2654: Quasi-catégories structurées. 2655: Expansion des systèmes de structures dominées. 5893: Deuxième théorème d'expansion structurée. *See also* Topologie et géométrie différentielle, #2398.

Ehrhart, E. 3431: Ovalles et ovoides.

Ehrmann, Hans. 4958: Existenzsätze für die Lösungen gewisser nicht-linearer Randwertaufgaben. 1889: (with Lahmann, H.-E.) Anwendungen des Schauderschen Fixpunktsatzes auf gewisse nicht-lineare Integralgleichungen.

Ehanees Saleh, A. K. Md. 3609: Estimation of the parameters of the exponential distribution based on optimum order statistics in censored samples.

Eichhorn, Wolfgang. 5852: (with Zassenhaus, Hans) Herleitung von Acht- und Sechzehn-Quadrat-Identitäten mit Hilfe von Eigenschaften der verallgemeinerten Quaternionen und der Cayley-Dickson-schen Zahlen.

Eicker, F. 2048: A multivariate central limit theorem for random linear vector forms. 3741: Consistent covariance estimation for general classes of stationary discrete stochastic processes. 6483: Multilinear Abbildungen topologischer Vektorräume und eine wahrscheinlichkeitstheoretische Anwendung.

Eidel'man, S. D. 4669: (with Ivashen, S. D.) Estimates of derivatives of the Green's matrix for a parabolic boundary value problem in a half-space. 7978: (with Ivashen, S. D.) Estimates of the Green's matrix for a homogeneous parabolic boundary value problem. 4718: (with Petruško, I. M.) Solvability of the Cauchy problem for parabolic equations of second order in classes of arbitrarily growing functions. 4687: (with Repnikov, V. D.) Necessary and sufficient conditions for establishing a solution to the Cauchy problem.

Edinov, M. I. 2707: On the theory of  $\pi$ -complete  $\pi R$ -groups.

Edinov, R. M. 6245: Stability of solutions of a differential equation with a discontinuous characteristic.

Eilenberg, Samuel. 3579: (with Moore, John C.) Homology and fibrations. I. Coalgebras, cotensor product and its derived functors. See also Proceedings of the Conference on Categorical Algebra, La Jolla, Calif., 1965, #2846.

Einhorn, S. J. 6644: (with Schoenberg, I. J.) On euclidean sets having only two distances between points. I. 6645: (with Schoenberg, I. J.) On euclidean sets having only two distances between points. II.

Eisen, M. 1658: Piecewise analytic solutions of mixed boundary value problems. 2973: A global existence theorem.

Eisenberg, E. 2349: (with Dantzig, G. B. and Cottle, R. W.) Symmetric dual nonlinear programs.

Eisenberg, Murray. 3279: Expansive automorphisms of finite-dimensional vector spaces. 3562: Expansive transformation semigroups of endomorphisms. 7700: A note on positively expansive endomorphisms. 8396: Maximally almost periodic and universal equicontinuous minimal sets.

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von Ellenrieder, A. 2134: (with Levine, A.) The probability of an "excessive nonfunctioning interval".

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Elliger, Sigurd. 1310: Über galoissche Körpererweiterungen von unendlichem Rang.

Elliott, George. 8147: (with Halperin, Israel) Linear normed spaces with extension property.

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Elliott, Robert J. 5033: Inductive limits of uniform spaces.

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Ellis, J. R. 1061: A spinor approach to quaternion methods in relativity.

Ellis, Jordan. 2228: (with Bernstein, Irwin S.) On the boundedness of solutions of a linearized restricted problem of four bodies.

Ellison, Bob E. 2092: Limits of infinite populations under random mating. 2093: Limit theorems for random mating in infinite populations.

El'natanev, B. A. 1283: Asymptotic estimate of special arithmetic sums taken over numbers with "large" and "small" prime divisors.

El'sgol'c, L. È. 1642: Determining systems of solutions of a linear homogeneous equation with deviating argument. 1894: Variational problems with deviating argument with moving boundaries. 7917: Problem of "adherence" of solutions of differential equations with deviating argument.

Emch, Gérard G. 3953: Non-Markovian model for the approach to equilibrium. 7166: The definition of states in quantum statistical mechanics. 8773: Rigorous results in non-equilibrium statistical mechanics. 3911: (with Guenin, Marcel) Gauge invariant formulation of the BCS model.

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van Emde Boas, P. 1421: A combinatorial problem on the semigroup of all transformations of a finite set. 1420: (with Baayen, P. C. and Kruyswijk, D.) A combinatorial problem on finite semigroups.

Emel'čev, V. A. 264: An algorithm for discerning regularity of a finitely defined commutative semigroup. 1424: Regularity of a finitely determined commutative semigroup. 2335: (with Komlik, V. I.) Application of dynamic programming to the problem of allocation.

Emizarov, K. 2990: (with Tulegenov, M. U.) An existence theorem for almost periodic solutions of a differential equation with a small parameter in a Banach space.

Endler, Otto. 7500: On the continuity of the roots of polynomials.

Endo, Kenji. 882: On estimating the probability connected to some exponential or geometric distribution.

Endo, Mikihiko. 1812: A note on locally compact division rings.

Enescu, I. 7567: On the algebra of hypercomplex numbers of finite order over the real field.

Engeler, Erwin. 1186: Combinatorial theorems for the construction of models. 4324: Categories of mapping filters.

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Engel'son, Ja. L. See Engelsons, J.

Engelsons, J. 1821: Application of variational theory to a certain class of nonlinear integro-differential equations.

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Epelman, M. S. 4021: (with Cypkin, Ja. Z.) Criterion for absolute stability of multiply connected sampled-data systems with non-stationary characteristics of the nonlinear elements.

Epifanov, G. V. 1221: Reduction of a plane graph to an edge by star-triangle transformations.

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Epstein, Irving J. 284: Exponential solutions of linear systems of differential equations whose coefficient matrix is skew symmetric.

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Erdell, A. See Erdélyi, A.

Erdélyi, A. 6459: Some integral equations involving finite parts of divergent integrals. 1565: (with Bateman, Harry) ★Higher transcendental functions. Bessel functions, functions of parabolic cylinder, orthogonal polynomials.

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Eremin, S. A. 2945a: (with Šadrov, A. F.) On complete systems and bases in spaces of functions holomorphic in multiple Hartogs regions.

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Eringen, A. Cemal. 3832: Theory of micropolar fluids. 2237: (with Jordan, Neal F.) Errata: "On the static nonlinear theory of electromagnetic thermoelastic solids".

Ermakov, Ju. I. 3455: Surfaces of a special form in the affine and projective spaces.

Ermakov, S. M. 2094: Correction to the article by S. M. Ermakov and V. G. Zolotuhin: "Polynomial approximations and the Monte Carlo method". 6984: On the admissibility of Monte-Carlo methods.

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Ernest, M. H. 1055: (with Haines, L. K. and Dorfman, J. R.) Divergent transport coefficients and the binary-collision expansion.

Eršov, Ju. L. 4134: On the elementary theory of maximal normed fields. II. 7375: New examples of undecidable theories. 7501: On elementary theories of local fields.

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Eraberger, Heinz. 5542: (with Kim, M.) Optimum boundary control of distributed parameter systems.

Esanjan, A. R. 1893: (with Sabirov, T.) The question of convergence of the averaging method of functional corrections.

Éakin, G. I. 6311: (with Višik, M. I.) Parabolic convolution equations in a bounded region.

Éakin, L. D. 1671: Asymptotic behavior of solutions of parabolic equations for  $t \rightarrow \infty$ . 3139: The heat equation and the Weierstrass transformation in certain symmetric Riemannian spaces. 6353: Heat equation on Lie groups.

Essam, J. W. 3932: (with Sykes, M. F.) Percolation processes. I. Low-density expansion for the mean number of clusters in a random mix-

ture. 3951: (with Sykes, M. F.; Heap, B. R. and Hiley, B. J.) Lattice constant systems and graph theory.

Eseen, Carl-Gustav. 839: On infinitely divisible one-sided distributions. 5128: On the Kolmogorov-Rogozin inequality for the concentration function.

van Est, W. T. 1458: On Ado's theorem.

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Esterman, I. I. 4761: Approximate solution of differential and integral equations by means of asymptotic polynomials of the second kind.

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Ettinger, Pierre. 6813: Conditions nécessaires et suffisantes pour qu'une variable aléatoire  $X$  soit attirée par l'une des trois classes de la théorie des valeurs extrêmes quand  $X$  est à valeurs dans un espace euclidien à  $p$  dimensions; classe qui attire la somme de deux variables aléatoires indépendantes à valeurs dans un espace euclidien à  $p$  dimensions. 6826: Sur l'attraction de la somme de deux variables aléatoires par l'une des lois limites de la théorie des valeurs extrêmes, dans certains cas de dépendance.

Euler, Leonhard. 1142: ★Leonhard Euleri commentationes opticae. Vol. III. See also Lihin, V. V., #9; Leonhard Euler und Christian Goldbach, Briefwechsel 1729-1764, #1144; Mel'nikov, I. G., #2410; Kiselev, A. A., #5617; Manuscripts of L. Euler in the Archives of the Academy of Sciences of the USSR, #5620 and #5621.

Evangelisti, Giuseppe. 2207a: Sulla soluzione numerica delle equazioni della propagazione col metodo delle caratteristiche. 2207b: Sulla soluzione numerica delle equazioni della propagazione col metodo delle caratteristiche. II.

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Everett, C. J. 86: On the basis and chromatic number of a graph. 7749: (with Cashwell, E. D.) The means of order  $t$ , and the laws of thermodynamics.

Everitt, W. N. 410: On the limit-point classification of second-order differential operators.

Eves, Howard. 6593a: ★A survey of geometry. Vol. 1. 6593b: ★A survey of geometry. Vol. 2.

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Evin, V. I. 7951: On a class of polynomials orthogonal on a multi-dimensional ellipsoid.

Evtushëva, N. V. 473: (with Kostenko, V. G.) Certain differential equations invariant with respect to groups of transformations.

Ewald, Günter. 4970: Eine gruppentheoretische Begründung der ebenen äquifinfin Geometrie.

Ezeilo, J. O. C. 2997: On the convergence of solutions of certain systems of second order differential equations. 3020: A stability result for a certain third order differential equation. 4597: A note on the convergence of solutions of certain second order differential equations. 4600: Erratum: "On the existence of almost periodic solutions of some dissipative second order differential equations". 4616: A generalization of a result of Dženidović on the existence of a limiting regime of a system of differential equations. 4624: Corrigendum: "A boundedness theorem for a certain third-order differential equation". 4625: (with Tejumola, H. O.) Boundedness and periodicity of solutions of a certain system of third-order non-linear differential equations.

Ežov, I. I. 857: Markov chains with discrete interference of an event forming a semi-Markov process. 8561: On a problem of Takács. 8562: On the state probabilities of a system  $G/G/1$  with losses.

Ézrohi, T. G. 325: On a class of univalent functions. 2852: Certain special classes of  $p$ -valent functions in the disc  $|z| < 1$  and in the circular region  $1 < |z| < +\infty$ .

Fabes, E. B. 1816: (with Rivière, N. M.) Commutators of singular integrals. 4699a: (with Rivière, N. M.) Parabolic partial differential equations with uniformly continuous coefficients. 4699b:

(with Rivière, N. M.) Parabolic partial differential equations with uniformly continuous coefficients.

Fabian, Václav. 6952: Stochastic approximation of minima with improved asymptotic speed.

Faddeev, D. K. 5873: An introduction to the multiplicative theory of modules of integral representations. 5895: (with Borevič, Z. I.) Representations of orders with cyclic index.

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Fadlalla, A. A. 1552: The Carathéodory limiting spherical shells in the euclidean hypersphere.

Fainleib, A. S. 5797: (with Levin, B. V.) Distribution of values of additive arithmetic functions.

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Fair, Wyman. 3733: (with Luke, Yudell L.) Rational approximations to the solution of the second order Riccati equation.

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Fajtlowicz, S. 5723: (with Glazek, K. and Urbanik, K.) Separable variables algebras.

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Falk, S. 5849: Einschließungssätze für die Eigenwerte normaler Matrizenpaare. 5841: Einschließungssätze für die Eigenvektoren normaler Matrizenpaare.

Familiari-Calapso, Maria Teresa. 6613: Le théorème de Pythagore en géométrie absolue.

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Farnsworth, David L. 3982: (with Kerr, Roy P.) Homogeneous dust-filled cosmological solutions.

Farrell, O. J. 1837: On approximation measured by a surface integral.

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Fedorčuk, V. V. 3515: Ordered sets and the product of topological spaces. 8375: Ordered spaces.

Fedorjuk, M. V. 446: The asymptotics of solutions to ordinary linear differential equations of the  $n$ -th order. 2992: Asymptotic behavior of eigenvalues and eigenfunctions of one-dimensional singular differential operators. 7870: Asymptotic methods in the theory of one-dimensional singular differential operators.

Fedoreva, V. P. 6507: Linear functionals and the Daniell integral in spaces of uniformly continuous functions.

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Fein, Burton. 4376: Representations of direct products of finite groups.

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Fejes Tóth, L. 6640: On the permeability of a circle-layer. 3432: (with Heppes, A.) Regions enclosed by convex domains.

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Félix, Lucienne. 5601: ★Elementarmathematik in moderner Darstellung.

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Feller, M. N. 1729: On the Laplace equation in  $L_2(C)$ -space.

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Ferguson, David E. 7437: An expression for generalized Fibonacci numbers.

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Head, T. J. 7639: A direct limit representation for abelian groups with an application to tensor sequences.

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Heap, B. R. 2500: The enumeration of homeomorphically irreducible star graphs. 3951: (with Sykes, M. F.; Essam, J. W. and Hiley, B. J.) Lattice constant systems and graph theory.

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Heineken, Hermann. 5931: (with Neumann, Peter M.) Identical relations and decision procedures for groups.

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Hejman, Jan. 1981: On conservative uniform spaces.

Hejný, M. 1921: Generalization of Steiner's center of the oval.

Held, Dieter. 5932: Ein Hyperzentralitätskriterium.

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Henderson, David W. 819: Relative general position.

Henderson, Mason. 1909: Finite Bolyai-Lobachevsky  $k$ -spaces.

Hennequin, P. L. 8436: Vecteurs aléatoires. Matrice de covariances. Vecteurs Laplaciens. 8437: Fonctions aléatoires Laplaciennes. 8509: Processus de Poisson. 8510: Fonctions aléatoires dérivées des processus de Poisson.

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Herda, H.-H. 1975: (with Metzler, R. C.) Closure and interior in finite topological spaces.

Herdan, Gustav. 4072: ★The advanced theory of language as choice and chance. 7303: ★Quantitative linguistics.

Herland, Leo. 6: ★Dictionary of mathematical sciences. Vol. I: German-English.

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Ivanjuta, I. D. 2673: On complete sets of Sylow subgroups of a countable symmetric group.

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Ivchenko, G. I. 8438: (with Medvedev, Ju. I.) Asymptotic behavior of the number of aggregates of particles in the classical occupancy problem.

Ivnitskii, V. A. 2083: Asymptotic investigation of probability characteristics of a generalized one-line system. 2084: Single queue system with a random intensity of the stream and the service speed.

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Izumi, Shin-ichi. 1780: (with Izumi, Masako) A new convergence criterion of Fourier series. 8062: (with Izumi, Masako) On the Leindler's theorem.

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Koh, Kwangil. 5858: On very large one sided ideals of a ring.

7568: On "Properties of rings with a finite number of zero divisors".

Kohls, C. W. 2634: (with Reid, J. D.) Orders on commutative rings.

Kohn, J. J. 829: Potential theory and several complex variables.

8010: Harmonic integrals on strongly pseudo-convex manifolds. II.

Kohno, A. P. 5917: On a criterion for supersolvability of finite groups.

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Kokilashvili, V. M. 1795: On the connection between Fourier-Lebesgue coefficients and the modulus of continuity of a function of two variables with double lacunary Fourier series.

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8073: Approximation of functions using the means of Walsh-Fourier series.

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8626: (with Ključev, V. V.) Minimization of computational algorithms in certain transformations of matrices.

Kolář, Ivan. 8200: Geometric structure with Hilbert's axioms of incidence and order.

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Kolesov, Ju. S. 6219: Positive periodic solutions of a class of differential equations of second order. 6282: A criterion for the existence of periodic solutions of parabolic equations.

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Kolmer, S. K. 1401: Generalization of the symplectic modular group.

Kolodner, I. I. 6328: (with Pederson, R. N.) Pointwise bounds for solutions of semilinear parabolic equations.

Kolomieć, V. G. 454: (with Korenivskii, D. G.) On excitation of oscillations in nonlinear systems with random retardation.

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Komatu, Yūsaku. 7807: On mean distortion for analytic functions with positive real part in a circle.

Komkov, Vadim. 5352: Application of Rall's theorem to classical elastodynamics.

Komlenko, Ju. V. 2999: Certain estimates of the interval of applicability of theorem of S. A. Čaplygin on differential inequalities and stability criteria for differential equations with periodic coefficients. 1590: (with Bezdomnikov, V. S.) On the question of estimation of the interval of applicability of Čaplygin's theorem. 1592: (with Ževlakov, G. N. and Tonkov, E. L.) Existence theorems for nonlinear boundary value problems.

Komlák, V. I. 2335: (with Emelićev, V. A.) Application of dynamic programming to the problem of allocation.

Komlós, János. 2334: (with Sárközy, András and Szemerédi, Endre) On sums of powers of complex numbers.

Konda, Tomoko. 784: On mappings in uniform spaces over a topological semifield.

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Kondrat'ev, V. A. 3104: On the boundary value problem for elliptic equations in domains with singularity. 4668: (with Egorov, Ju. V.) On an oblique derivative problem. 7950: (with Egorov, Ju. V.) Existence of a solution to a problem with oblique derivative.

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Konijn, H. S. 2112: Non-existence of consistent estimator sequences and unbiased estimators: A practical example. 5201: Non-existence of consistent estimator sequences and unbiased estimators: A practical example.

Konjuhov, M. V. 1600: Multiple-point problem for a nonlinear differential equation of the  $n$ th order.

Konno, Reiji. 1848: (with Kuroda, S. T.) On the finiteness of perturbed eigenvalues.

Kono, Mitsuhide. 504: (with Kusano, Takaši) A boundary value problem for nonlinear parabolic equations of the second order.

Kono, Norio. 1378: (with Umemura, Yasuo) Infinite dimensional Laplacian and spherical harmonics.

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Kopačevskii, N. D. 8709: On the Cauchy problem for small vibrations of a viscous fluid in a weak field of mass forces. 5377: (with Myškis, A. D.) Hydrodynamics in weak force fields. Small vibrations of a viscous fluid in a potential field of mass forces.

Kopčenov, V. D. 1667: A variational problem with a small parameter. I. 1668: A variational problem with small parameter. II.

Kopeć, J. 1793: On functions satisfying a certain condition of Mandelbrojt. 4495: Inverse monotone functions and their applications to the theory of entire functions.

Kopelevič, Ju. H. *See* Manuscripts of L. Euler in the Archives of the Academy of Sciences of the USSR. Vol. I. Scientific description, #5620.

Kopociński, B. 6974: On the local optimality of some regular sampling patterns in the plane. II.

Kopp, V. G. 1935: Infinitesimal motions of a four-dimensional pseudo-Euclidean space of zero-signature. 3469: Classification of infinitesimal motions and their bundles in three-dimensional semi-Euclidean spaces.

Koppel, H. 7013: Convergence of the generalized method of Steffensen.

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Korenbljum, B. I. 1528: Non-triviality conditions for certain classes of functions analytic in an angle and problems of quasianalyticity. 1771: A theorem of Weierstrass type in spaces of infinitely differentiable functions.

Korenevskii, D. G. *See* Korenivskii, D. G.

Korenivskii, D. G. 454: (with Kolomieć, V. G.) On excitation of oscillations in nonlinear systems with random retardation.

Korganoff, André. 7000: (with Pavel-Parvu, Monica) ★Méthodes de calcul numérique. Tome II: Éléments de théorie des matrices carrées et rectangles en analyse numérique.

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Korobeinik, Ju. F. 4637: Certain characteristic properties of differential operators of infinite order. 6188: Solutions of a differential equation of infinite order, analytic in non-circular regions. 7915: Certain applications of the theory of normally-solvable operators to differential equations of infinite order.

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Korolev, V. V. 433: On the existence and uniqueness of a limiting cycle for many-dimensional autonomous systems.

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Koromisljenko, V. D. 542a: On the Čebyšev approximation of certain operators. 542b: Čebyšev approximation with and without connections in certain hypercomplex spaces. 1768: Čebyšev approximations with imposed relations and the extremal problem of moments. 3163: The direct and the inverse problem of V. A. Markov in a complex region. I.

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Korovkin, P. P. 1763: On the order of approximation of functions by linear polynomial operators of the class  $S_n$ .

Korjukov, A. D. 5582: On asymptotic estimates of complexity of some classes of relay networks.

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Koseki, Ken'iti. 4536: Neuer Beweis des Hartogschen Satzes. 6108: Über die Häufungsmengen der meromorphen Funktionen.

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Koška, Maurice. 1425: Bi-hypertas, demi-groupes, demi-hypergroupes. 2736: Hypertas, demi-groupes et demi-hypergroupes. 2737: Théorie des hypertas. Applications à la théorie des demi-groupes.

Kosmann, Yvette. 723: Dérivées de Lie des spineurs. 724: Dérivées de Lie des spineurs. Applications.

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Kostant, Bertram. 7328: Groups over  $Z$ .

Kostenko, K. S. 472: A system of differential equations invariant with respect to a non-euclidean motion group.

Kostenko, V. G. 473: (with Evstaf'eva, N. V.) Certain differential equations invariant with respect to groups of transformations.

Kosticyna, L. I. 3877: On the question of a filtration stream in a piecewise homogeneous porous medium.

Kostjučenko, A. G. 1884: Asymptotic behavior of the spectral function of a singular differential operator of order  $2m$ . 8229: (with Lovitan, B. M.) Asymptotic behavior of eigenvalues of the operator Sturm-Liouville problem.

Kostovskij, A. N. 947: Bounds for zeros of the Laurent series depending on the numerical inclinations of the Newton majorant.

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Kostyrko, V. F. 4136: On the  $\mathbb{V}\mathbb{E}$  reduction class.

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Kotijar, B. D. 555: Walsh series and the theorem of Men'sov on "correction" of functions. 3171: (with Brudnyi, Ju. A.) On the order of growth of  $\varepsilon$ -entropy for certain compact classes of functions.

Kotō, Saishi. 739: (with Nagao, Mitsuji) On an invariant tensor under a CL-transformation.

Kotev, V. F. 1906: Isotomic and isogonal transformations.

Kotz, Samuel. 6367: On the solutions of some "isomoment" functional equations. 8876: Recent results in information theory. 5129: (with Kambo, N. Singh) On exponential bounds for binomial probabilities.

Kotsig, Anton. 673: On regularly variegated polyhedra. 2490: On even regular graphs of the third degree. 2491: Cycles in a complete graph oriented in equilibrium. 1269: (with Bosák, Juraj and Znám, Štefan) Modification of semi-completeness for integer sequences.

Kounias, Eustratios. 5558: Optimal bounded control with linear stochastic equations and quadratic cost.

Koutecký, Jaroslav. 2399: Contribution to the theory of alternant systems.

Koutský, Karel. 16: Čech's Topological Seminar in Brno, 1936-1939.

Kovač, Ju. I. 460: An approximate integration of the Goursat problem for a general  $2n$ -wave system of differential equations by the method of bilateral approximation. 478: Application of the theorem of differential inequalities to the Goursat problem for a linear system of partial differential equations. 4885: The "fork"-theorem in the Cauchy problem for a nonlinear equation in partial derivatives of higher orders. 6344: On the question of approximate integration of the Goursat problem for the general  $n$ -wave equation. 7026: Approximate integration of the Cauchy problem for a system of ordinary differential equations of an arbitrary order.

Kovács, István. 3355: (with Szűcs, József) Théorèmes de type ergodique dans les algèbres de von Neumann.

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Koval'čík, Ī. M. 1478: A nonlinear substitution of variables in a multiple Wiener integral. 6303: A differential-variational equation.

Koval'čík, B. V. 549: Approximation by trigonometric polynomials of differentiable functions of two variables defined by polyharmonic operators.

Kovalenko, A. I. 8080: Certain summability methods for Fourier series.

Kovalenko, I. N. 4041: On certain classes of complex systems. I, II, III. 5130: Statistical characterization of symmetric stable distribution laws. 5591: Remarks on the complexity of representing events in probabilistic and determinate finite automata.

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Kovanits, P. 5567: Generalized discrete analog of the Zadeh-Ragazzini problem.

Kováčik, Zdislav. 3750: Convergence acceleration of linear iterative processes in Banach spaces.

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Koženík, Jaroslav. 4014: Stochastic theory of biological and economic configurations.

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Kozlovcev, S. G. 5997: On the structure of measurable functions.

Kozlovskii, K. I. 1918: Configurations of circles in circular quaternary.

Kozłowski, George. 779: (with Tong, Hing) Two problems of Hewitt on topological expansions.

Kra, Irwin. 6557: Maximal ideals in the algebra of bounded holomorphic functions.

Krabs, Werner. 1765: Zur verallgemeinerten rationalen Approximation.

Kraines, David. 2010: Massey higher products.

Krainova, L. I. 4800: (with Subhankulov, M. A.) Boundary values of the Poisson integral and the rapidity of convergence of the Fourier series of a continuous function. 6423: (with Subhankulov, M. A.) Boundary values of the Poisson integral and the convergence of a Fourier series at a point. 6435: (with Subhankulov, M. A.) On the rapidity of convergence and (C,1) summability of Fourier series and conjugate functions. 8066: (with Subhankulov, M. A.) Boundary values of the Poisson integral and convergence of Fourier series. I.

Krajewski, B. 2261: A variational approach to the three-dimensional theory of convective heat transfer.

Králik, D. 3214: Über ein Problem der starken Summierbarkeit von Fourierreihen.

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Kramar, F. D. 13: Quaternions in the early works of Hamilton.

Kramer, D. 5478: (with Stephani, H.) Bispinorfelder im Riemannschen Raum.

Kramer, P. 1047: (with Moshinsky, M.) Group theory of harmonic oscillators. III. States with permutational symmetry.

Krasil'kov-Ternovskii, I. F. 2880: Comparison of entire functions of integral order by the distribution of their roots.

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Krasnosel'skii, M. A. 1615: On the theory of periodic solutions to non-autonomous differential equations. 3012: ★Displacement operators along trajectories of differential equations. 4657: (with Sobolevskii, P. E.) On some non-linear problems for the partial differential equations. 8149: (with Klimov, V. S. and Ljšic, E. A.) Points of smoothness of a cone and convergence of positive functionals and operators. 8200: (with Zabreiko, P. P. and Stecenko, V. Ja.) Estimates of the spectral radius of positive linear operators. 1995: (with Perov, A. I.; Povoloskii, A. I. and Zabreiko, P. P.) ★Vektorfelder in der Ebene. 6738: (with Perov, A. I.; Povoloskii, A. I. and Zabreiko, P. P.) ★Plane vector fields. 6568: (with Zabreiko, P. P.; Pustyl'nik, E. I. and Sobolevskii, P. E.) ★Integral operators in spaces of summable functions.

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Krasovskii, A. A. 1087: Sufficient conditions for statistical stability of motion.

Krasovskii, N. N. 7251: Approximation of an optimal control problem for a system with delay. 455: (with Kuržanskii, A. B.) On the question of observability of systems with retardation.

Kravčuk, M. I. 7652: Solvable and  $\pi$ -solvable finite groups.

Kré, Paul. 1679: (with Boutet de Monvel, Louis) Opérateurs pseudo-différentiels et classes de Gevrey.

Kreider, D. L. 5681: (with Ritchie, R. W.) A basis theorem for a class of two-way automata.

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Krikis, J. 7912: (with Rezink, L.) Smoothness of asymptotic invariant manifolds.

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Kristensen, Leif. 2009: (with Kock, Anders) A secondary product structure in cohomology theory.

Kristian, J. 2324: (with Sacha, R. K.) Observations in cosmology.

Krivine, J. L. 7331: (with Kreisel, G.) ★Éléments de logique mathématique. Théorie des modèles. 3608: (with Bretagnolle, Jean and Daunh-Castelle, Didier) Lois stables et espaces  $L^p$ .

Krivenosev, L. N. 4994: Parallel and normal correspondence of two-dimensional surfaces in the four-dimensional Euclidean space  $E_4$ . 4995: Surfaces in  $E_4$  generating a sequence of evolute surfaces.

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retarded argument. 8670: (with Mangeron, D.) New methods of numerical calculation of the solutions of various integro-differential systems of interest in applied mechanics. III. Boundary problems for integro-differential equations with caloric operators and retarded argument.

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de Kroon, J. P. M. 5796: The asymptotic behaviour of additive functions in algebraic number theory.

Kršmanović, Miladin. 7027: (with Pejović, Pavle) A method of estimation of the accuracy of approximate solutions of differential equations. 7055: (with Pejović, Pavle) An approach to estimation of errors in approximate solution of integro-differential equations.

Krüger, Wolfgang. 658: Regelscharen und Regelflächen in dreidimensionalen desargueschen Räumen.

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Krumhaar, Hans. 8230: Über die ausgezeichnete Randbedingung bei gewöhnlichen selbstadjungierten Differentialoperatoren gerader Ordnung an einer Stelle der Bestimmtheit.

Krupnik, N. Ja. 4950: On the question of normal solvability and the index of singular integral equations.

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Lihin, V. V. 9: Euler's and Lagrange's investigations in the theory of finite differences. 10: First investigations in the theory of summation of functions.

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Lipco, R. S. 861: Comparison of linear and nonlinear filtration of certain Markov processes. 2056: On maximization of the confidence probability by incomplete data.

Lippi, Marco. 1917a: Sugli elementi uniti nelle collineazioni dei piani liberi e dei piani aperti. I. 1917b: Sugli elementi uniti nelle collineazioni dei piani liberi e dei piani aperti. II.

Lippmann, B. A. 3900: Generalized Ehrenfest theorem.

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singular integral equations and a generalized boundary-value problem of Carleman type.

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Liu, Tsai-sheng. 1789: On the absolute Cesàro summability factors of Fourier series.

Liutikas, V. 5180: Calculation of moments and semi-invariants of the number of renewals in the case of a discrete renewal process.

Livčák, J. B. 1977: Certain questions of the theory of limits.

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Ljubarskii, G. Ja. 7074: (with Rabotnikov, Ju. L.) A linear oscillator with randomly changing rigidity.

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Mihăileanu, N. 1904: ★Elements of projective geometry. 3413: On a quadratic null correlation. 6672: Canonical forms in the theory of line congruences in non-euclidean space.

Mihăilescu, Eugen. 27: The properties of the converse implication in respect to the equivalence and disjunction.

Mihăilescu, Tiberiu. 1936: Regular normal surfaces associated with a non-developable surface.

Mihailov, G. A. 8448: On the question of efficient algorithms for modelling of random variables. 8781: Calculations of parameters of critical systems by the Monte-Carlo method. 8782: On calculations of perturbations of nuclear reactors by Monte-Carlo method.

Mihailov, G. K. *See* Vibrations. Gyroscopic, #2b; Mechanics of a solid body, #2c; Manuscripts of L. Euler in the Archives of the Academy of Sciences of the USSR. Vol. I. Scientific description, #5620 and Manuscripts of L. Euler in the Archives of the Academy of Sciences of the USSR. Vol. II. Works on mechanics. Part I, #5621.

Mihailov, L. G. 8119: ★Integral equations with a kernel homogeneous of degree  $-1$ . 8233: (with Bil'man, B. M.) Conditions for complete continuity of operators with a singularity of the type of a homogeneous function of first degree. 689: (with Usmanov, Z. D.) Infinitesimal bendings of surfaces of revolution with positive curvature and with a parabolic or a conic point at the pole.

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Mihaleva, E. A. 1695: Uniqueness of a solution of the second and third boundary value problems for an elliptic equation of the second order.

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Milin, I. M. 4469: Closed orthonormal systems of analytic functions in domains of finite connectivity.

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Millevi, Tomaso. 1347: Una proprietà degli ideali di classe principale negli anelli di Macaulay. 1323: (with Baldassarri-Ghezzo, Santuzza and Margaglio, Claudio) Considerazioni sulla conferenza tenuta da M. Baldassarri a Torino nel 1961. Osservazioni sulla struttura dei fasci lisci.

Millionščikov, V. M. 6106: The structure of fundamental matrices of  $R$ -systems with almost periodic coefficients.

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Mil'man, V. D. 4876: Some properties of sequences of elements of Banach spaces. 6491: Perturbations of sequences of elements of a Banach space. 8877: (with Lev, A. Ju. and Mil'man, D. P.) Convolution of information in the classical probabilistic scheme.

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Milner, E. C. 1210: On a conjecture of Conway.

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Minami, Masatsugu. 8746: Homological study of the generalized singular functions. I. A preliminary formulation based mainly upon the three-point case.

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Minkowski, Peter. 5430: (with Williams, David N. and Seiler, Rudolf) On Stapp's theorem.

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Miracle-Sole, S. 3357: (with Loupian, G.)  $C^*$ -algèbres des systèmes canoniques. I.

Mirakov, V. E. 2986: Conditions for the solvability of Čaplygin's problem.

Miranda, Mario. 649: Un teorema di esistenza e unicità per il problema dell'area minima in  $n$  variabili. 1896: Errata: "Sul minimo dell'integrale del gradiente di una funzione".

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Miron, Radu. 1951: Sur la dérivée de Lie des objets géométriques  $\Omega^k(\xi, \dot{\xi})$ . 3449: ★Geometry of Myller configurations. 3481: (with Papuc, Dan I.) La théorie des variétés d'un espace à connexion affine.

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Miščenko, E. F. 1768: (with Nikol'skii, M. S.) A certain problem with a small parameter for parabolic differential equations.

Misevičius, G. 5798: The use of the method of moments in probabilistic number theory.

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Mišk, Ladislav. 2799: Über die Eigenschaft von Darboux und einiger Klassen von Funktionen. 6729: Über die Eigenschaft von Darboux für Funktionen.

Misajavičius, G. See Misevičius, G.

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Mitkelevičius, A. 4466: On the convergence of Dirichlet series. 4467: On the boundary of the region of convergence of a Dirichlet series.

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Milustin, B. A. 6428: Expansion of an arbitrary function in Bessel functions with a complex index.

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Mitani, Suketaka. 1978: A generalization of the Cauchy filter and the completion.

Mitchell, A. R. 971: (with Gourlay, A. R.) Alternating direction methods for hyperbolic systems. 7033: (with Gourlay, A. R.) Two-level

difference schemes for hyperbolic systems. 4359: (with Mitchell, Roger W.) Some structure theorems for infinite Abelian  $P$ -groups.

Mitchell, Barry. 2647: ★Theory of categories.

Mitchell, Roger W. 4358: (with Mitchell, A. Richard) Some structure theorems for infinite Abelian  $P$ -groups.

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Mitrinović, D. S. 323: ★Calculus of residues. 1470: (with Vasić, P. M.) Nouvelles inégalités pour les moyennes d'ordre arbitraire. 1471: (with Vasić, P. M.) Une classe d'inégalités où interviennent les moyennes d'ordre arbitraire.

Mitropol'skii, Ju. A. 3037: (with Lykova, O. B.) Investigation of the behavior of solutions of nonlinear equations in the neighborhood of the equilibrium state. 4094: (with Lykova, O. B.) Gottfried Leibniz: 250th anniversary of his death. See also Erugein, N. P.; Sokolov, Ju. D.; Feščenko, S. F. and Lykova, O. B., #5632 and Glukhov, V. M.; Parajuk, O. S.; Koroljuk, V. S. and Lykova, O. B., #2418.

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Mochizuki, H. Y. 1405: (with Bachmuth, S.) Cyclotomic ideals in group rings.

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Mockus, I. B. 8459: Some asymptotic properties of functions of several variables.

Mode, Charles J. 2072: Some multi-dimensional branching processes as motivated by a class of problems in mathematical genetics. I. 2073: Some multi-dimensional branching processes as motivated by a class of problems in mathematical genetics. II. 2095: Restricted transition probabilities and their applications to some problems in the dynamics of biological populations. 2096: A multidimensional birth process and its application to some problems in the dynamics of biological populations. 3630: A stochastic calculus and its application to some fundamental theorems of natural selection. 8460: A renewal density theorem in the multi-dimensional case.

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Mohr, Ernst. 1797: Ein Umkehratz Tauberscher Art für Laplace-Stieltjes-Integrale.

Moiseenko, B. D. 3807: (with Samarskii, A. A.) An efficient scheme for the through computation in a many dimensional Stefan problem.

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Monastyrnyi, V. I. 5868: (with Suprunenko, D. A.) On Sylow subgroups of the multiplicative group of a division ring.

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Monteiro, A. 1235: Construction des algèbres de Nelson finies. 1236: (with Cignoli, Roberto) Boolean elements in Lukasiewicz algebras. II.

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Montgomery, Deane. 820: (with Yang, C. T.) Differentiable actions on homotopy seven spheres.

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Moseenkov, B. I. 7983: An algorithm for constructing asymptotic approximations of solutions for some mixed boundary value problems and boundary value problems with nonlinear boundary conditions. 7984: The construction of formal solutions for a class of nonlinear mixed boundary value problems and application of Krylov-Bogoliubov asymptotic methods in the investigation of single-frequency oscillations.

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Mostowski, A. 7357: On some new metamathematical results concerning set theory. 7379: (with Kuratowski, K.) ★ Theory of sets.

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Mote, V. L. 6926: (with Anderson, R. L.) An investigation of the effect of misclassification on the properties of  $\chi^2$ -tests in the analysis of categorical data.

Motornyi, L. T. 5345: On a problem of V. Blaschke concerning surfaces of quasi-transfer and their connection with plane kinematics. 1948: (with Blank, Ja. P.) The problem of W. Blaschke on surfaces of quasi-transfer and their connection with kinematics on the plane.

Motornyi, V. P. 8044: Certain questions of the approximation of functions by algebraic polynomials with respect to an integral metric.

Mott, Joe Leonard. 193: Integral domains with quotient overrings.

Mott, N. 3893: (with Sneddon, I.) ★ Wave mechanics and its applications.

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Moursund, David G. 4771: Chebyshev approximation using a generalized weight function.

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Moyer, R. D. 805: (with Chu, S. C.) On continuous functions, commuting functions, and fixed points.

Mezgovaja, Ē. A. 8858: (with Samoilenko, Ju. I.) Construction of an optimal algorithm for extremal control based on the principle of dynamic programming.

Mozok, G. M. 1660: Calculation algorithms for the solution of bi-harmonic problems. 5315: Solution of boundary value problems by the method of nets.

Mrówka, S. 6712: On  $E$ -compact spaces. II. 1989: (with Bielecki, R.) On the extensions of continuous functions from dense subspaces.

Mróz, Z. 8791: On forms of constitutive laws for elastic-plastic solids.

Mubarakov, T. M. 6250: A sufficient condition for asymptotic stability of a linear differential equation of the second order with retardations.

Mučník, A. A. 56: On strong and weak reducibility of algorithmic problems.

Mudholkar, Govind S. 7741: The integral of an invariant unimodal function over an invariant convex set—an inequality and applications. 8441: (with Rao, Poduri S. R. S.) Some sharp multivariate Chebycheff inequalities.

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Muhina, I. V. 8729: (with Molotkov, I. A.) Nonstationary wave propagation in a nonhomogeneous half-space with a minimum in the velocity of propagation.

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Mukai, Juno. 6769: Stable homotopy of some elementary complexes.

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Müller, Harald J. W. 4567: Asymptotic expansions of ellipsoidal wave functions in terms of Hermite functions. 7838: On asymptotic expansions of ellipsoidal wave functions.

Müller, Karl Hans. 4367: Schwachnormale Untergruppen: Eine gemeinsame Verallgemeinerung der normalen und normalisator-gleichen Untergruppen.

Müller, Klaus. 1631: Modification of the Delves variation principle.

Müller, W. J. C. 1056: (with Ludwig, G. and Schröter, J.) A derivation of Boltzmann's equation with an assumption of determinacy. II.

Müller, Wolfdieter. 436: Qualitative Untersuchung der Lösungen nichtlinearer Differentialgleichungen zweiter Ordnung nach der direkten Methode von Ljapunov. 3001: Über die Beschränktheit der Lösungen eines Systems von Differentialgleichungen zweiter Ordnung. 7906: Eine Bemerkung zu einem Resultat von Z. Opial. Müller zum Hagen, Henning. 5489: Einsteinsche Gravitations-Vakuumfelder, die eine expandierende, drehungs- und scherungsfreie Bewegung von Probeteilchen zulassen.

Mullin, R. C. 5708: On the enumeration of tree-rooted maps.

Mullins, Robert E. 6564: The essential set of function algebras.

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Münzner, Hans Friedrich. 3450: Maximumprinzipähnliche Sätze der euklidischen und der affinen Flächentheorie. 6655: Ein Satz über nicht isolierte Nabelpunkte und eine Kennzeichnung der Kugeln unter den vollständigen elliptisch gekrümmten Flächen. 8350: Über eine spezielle Klasse von Nabelpunkten und analoge Singularitäten in der zentroaffinen Flächentheorie. 8351: Über Flächen mit einer Weingartenschen Ungleichung.

Mura, Lucia Maria. 3125: Sulle funzioni paraboliche elementari di ordine qualunque.

Murakami, Shingo. 1460: Sur la classification des algèbres de Lie réelles et simples. 6303: Cohomologies of vector-valued forms on compact, locally symmetric Riemann manifolds.

Murav'ev, P. A. 2969: An integral form of the general solution of a linear differential equation and its applications.

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Mureşan, Elena. 4992: (with Albu, T.; Iancu, V.; Băcilă, I. and Beuran, Marieta) On the evaluation of areas of nondevelopable surfaces.

→ 3628:  $\star$  Limit theorems for sums of independent two-dimensional random vectors. 6841: A theorem on large deviations. NAG

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Murre, J.-P. 5836: On contravariant functors from the category of preschemes over a field into the category of abelian groups (with an application to the Picard functor).

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Musen, Peter. 7102: Application of Krylov-Bogolubov method to the solution of the stellar three body problem.

Mushelishvili, N. I. 2235:  $\star$  Some basic problems of the mathematical theory of elasticity. Fundamental equations, plane theory of elasticity, torsion and bending.

Musialek, J. 509: Construction of the fundamental solution for the equation  $\Delta^2 u(X) + ku(X) = 0$ .

Musojan, V. H. 6041: Analytic continuation of functions which can be approximated by the Dirichlet polynomials.

Mustafaev, G. B. 2987: An expansion formula connected with the boundary value problem with a complex parameter for systems of differential equations of the first order.

Mustafaev, L. G. 2751: Ideal equivalences of semiheaps.

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Multari, D. H. 3538: (with Šerstnev, A. N.) On methods of introducing a topology in random metric spaces.

Multari, H. M. 1003: (with Galimov, N. K.) On the theory of three-layer plates and shells.

Mustaţă, P. 1725: Sur la représentation de Poisson des solutions du problème de Cauchy pour l'équation de la chaleur.

Musti, Romolo. 3463: Sugli  $E_9$  piani corrispondenti in una trasformazione puntuale fra spazi proiettivi.

Muszély, György. 1741: (with Fischer, Pál) Generalizations of a certain kind for Cauchy's functional equation.

Mutō, Yosie. 6602: A note on Riemannian pinching.

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Mycielski, Jan. 4140: (with Sierpiński, W.) Sur une propriété des ensembles linéaires.

Myers, Donald E. 1875: The algebra  $H^2(S)$ .

Myers, Jerome L. 8602: (with Heucker, Otto) Choice behavior and reward structure: Preasymptotic statistics.

Myller, Alexandra: *Obituary*, #4097.

Myller-Lebedeff, Vera. 1311: Sur les racines primitives et les systèmes de bases et indices dans le corps quadratique général.

Myrberg, P. J. 2421: Srinivasa Ramanujan. Indian mathematician.

Myrick, Donal R. 6164: A generalization of the radial polynomials of F. Zernike.

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Mylikis, A. D. 1700: On the maximal solvability region of mixed problem for almost linear hyperbolic system with two independent variables. 4421: On the inverse Hölder condition. 6231: (with Bože, Dz.) General theorems of the second method of Ljapunov for systems of equations in total differentials. 6232: (with Bože, Dz.) Stability in the emission zone of solutions of systems in total differentials. 5377: (with Kopadevskil, N. D.) Hydrodynamics in weak force fields. Small vibrations of a viscous fluid in a potential field of mass forces. 8036: (with Mylikis, P. A.) On the equivalence of methods of improper integration. 4095: (with Rabinovič, I. M.)  $\star$  Mathematician Piers Bohl from Riga. 3002: (with Reiznja, L.) On trajectory stability of an isolated stationary point in a space of odd dimension. 3829: (with Žel'dovič, Ja. B.)  $\star$  Elements of applied mathematics.

Mylikis, P. A. 8036: (with Mylikis, A. D.) On the equivalence of methods of improper integration.

Mylikov, S. K. 5339: (with Dem'janov, V. F.) On solving certain optimal problems in nonlinear systems of automatic control.

Mylikis, A. 5526: Theory of pursuit in gravitational and electromagnetic fields.

Mysovskih, I. P. 7042: Construction of cubature formulas and orthogonal polynomials.

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Nadaraja, E. A. 6948: Square estimate of a statistical approximation of the distribution density.

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Nadler, Sam B., Jr. 3586: A characterization of the differentiable submanifolds of  $R^n$ .

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Nagaev, R. F. 994: Synchronization in a system of essentially nonlinear objects with a single degree of freedom.

Nagaev, S. V. 3628:  $\star$  Limit theorems for sums of independent two-dimensional random vectors. 6841: A theorem on large deviations. 6884: A theorem in renewal theory. 865: (with Muhamedhanova, R.) Transition phenomena in branching random processes with discrete time. 866: (with Muhamedhanova, R.) Certain limit theorems in the theory of branching random processes. 6842: (with Muhić, A. B.) A case of convergence to the uniform distribution on a segment.

Nagahara, Takasi. 4307b: Quasi-Galois extensions of simple rings. 4307c: Supplements to the previous paper: "Quasi-Galois extensions of simple rings". 7589: A note on Galois theory of commutative rings. 1363: (with Tominaga, Hisao) Errata: "On Galois theory of simple rings". 5879: (with Tominaga, Hisao) On dimensions of simple ring extensions. 1364: (with Kishimoto, Kazuo and Tominaga, Hisao) Errata: "Supplementary remarks to the previous papers".

Nagano, Tadashi. 5030: A problem on the existence of an Einstein metric.

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Nagao, Mitsugi. 739: (with Kotō, Satoshi) On an invariant tensor under a CL-transformation.

Nagasawa, Jun. 740: On infinitesimal linear isotropy group of an affinely connected manifold.

Nagasawa, Masao. 2068: (with Ikeda, Nobuyuki and Watanabe, Shinzo) On branching Markov processes. 2069: (with Ikeda, Nobuyuki and Watanabe, Shinzo) Fundamental equations of branching Markov processes. 2070: (with Ikeda, Nobuyuki and Watanabe, Shinzo) A construction of Markov processes by piecing out. 2071: (with Ikeda, Nobuyuki and Watanabe, Shinzo) A construction of branching Markov processes.

Nagashima, Takashi. 4115: A remark on a comprehension axiom without negation.

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Nagle, John F. 2501: On ordering and identifying undirected linear graphs.

Nagnibida, M. I. 1886: On the question of isomorphisms of an analytic

space commuting with a power of a differential operator. 4953: ↑Isomorphisms of analytic spaces, commuting with the differentiation operator.

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Nagrebecki, V. T. 2660: Invariant coverings of subgroups.

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Nahinsky, Irwin D. 4018: Statistics and moments-parameter estimates for a duoprocess paired-associate learning model.

Nahon, Fernand. 8689: Sur les solutions particulières de l'équation de Hamilton-Jacobi des systèmes conservatifs à deux degrés de liberté.

Nahuliev, A. M. 508: Boundary value problem of mixed type with two lines of degeneracy.

Naiman, P. B. 1852: Certain tests for unboundedness and discreteness of the spectrum of Jacobi matrices. 6535: Jacobi matrices with the limiting spectrum consisting of a single point.

Naimark, M. A. 4928: ★Normed rings. 6546: Berichtigung zu: "Kommutative symmetrische Operatorenalgebren in Pontryaginschen Räumen  $\pi_n$ ". 8215: Analog of Stone's theorem for a space with an indefinite metric. 8216: Representations of commutative symmetric Banach algebras and commutative topological groups in the space  $\pi_n$ . 8217: Degenerate operator algebras in the Pontryagin space  $\pi_n$ . 8218: Conditions for the unitary equivalence of commutative symmetric algebras in the Pontryagin space  $\pi_n$ .

Naimpally, Somashekhar Amrit. 1993: Function space topologies for connectivity and semi-connectivity functions. 6730: On strongly continuous functions. 781: (with Murdeshwar, M. G.) Semi-Hausdorff spaces.

Nair, C. Ramankutty. 916: On partially linked block designs.

Nakagawa, Hisao. 736:  $f$ -structures induced on submanifolds in spaces, almost Hermitian or Kählerian. 762: On the automorphism groups of  $f$ -manifolds. 8022: On framed  $f$ -manifolds.

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Nakai, Mitsuru. 2863: On  $\Phi$ -bounded harmonic functions. 2881: (with Sario, Leo) Construction of principal functions by orthogonal projection. 6076: (with Sario, Leo) Normal operators, linear liftings, and the Wiener compactification.

Nakamura, Kirio. 1384: Über Permutationsgruppen vom Grad 2p.

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Nakamura, Michiko. 6023: (with Amemiya, Ichiro) On the limits of Riemann sums of functions in Banach spaces.

Nakanishi, Shizu. 3306: Sur une représentation des distributions.

Nakano, Hidegoro. 1445: Invariant metrics. 3239: (with Metzler, Richard) Quasi-norm spaces.

Nakano, Shigeo. 3595: Extension problem of complex line bundles for Kähler surfaces.

Nakashima, Katsuya. 974: Numerical computation of elliptic partial differential equations. I. Method of lines.

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Nakazato, Haruo. 219: On the self-conjugateness and the index of a complex irreducible representation of a real simple Lie algebra.

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Namioka, I. 2007: A duality in function spaces. 4406: On a recent theorem by H. Reiter.

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Naparvaridze, O. I. 1712: On approximate solution of the Cauchy-Neumann problem for the heat equation.

Napolitani, Franco. 1399: Elementi  $\cup$ -quasi distributivi nel reticolo dei sottogruppi di un gruppo.

Narendra, Kumpati S. 4022: (with Neuman, Charles P.) Stability of a class of differential equations with a single monotone nonlinearity.

Nariboli, G. A. 2995: Eigen-function expansions for a fourth order differential equation.

Narkiewicz, W. 1301: On natural numbers having unique factorization in a quadratic number field.

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Nash, John F. 5099: Analyticity of the solutions of implicit function problems with analytic data.

Nash-Williams, C. St. J. A. 96: Euler lines in infinite directed graphs.

Nasibov, F. G. 6092: (with Ibragimov, I. I.) Certain extremal problems for linear operators in the class of entire functions of finite degree.

Naslin, P. 8832: Méthodes d'étude des systèmes non-linéaires. 8845: Introduction à la théorie de la commande optimale.

Năstăescu, C. 1374: (with Niță, C.) Objets noethériens par rapport à une sous-catégorie épaisse d'une catégorie abélienne. 2662: (with Niță, C.) Le groupe de Grothendieck. 226: (with Popescu, Nicolae) Sur la structure des objets de certaines catégories abéliennes.

Nastold, Hans-Joachim. 177: Nonarchimedean function theory.

Nasyrov, R. M. 1622: On the stability of almost periodic motions in certain critical cases. 7895: Stability on a finite time-interval in the case of one null-root and a pair of purely imaginary roots.

Na-t'ang-sung, I. P. *See* Natanson, I. P.

Natanson, G. I. 8057: Approximation by Fourier sums of functions possessing different structural properties on different parts of the domain of definition. *See also* Linear equations of math. phys., #6278.

Natanson, I. P. 1758a: ★Constructive theory of functions. Vol. I. 1758b: ★Constructive theory of functions. Vol. II. 1758c: ★Constructive theory of functions. Vol. III.

Naumov, I. A. 3451: Works of Ukrainian mathematicians on non-holonomic differential geometry. 12: (with Gaiduk, Ju. M.) Russian pages of G. Lamé's biography.

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Naus, J. I. 6804: Some probabilities, expectations and variances for the size of largest clusters and smallest intervals.

Naux, Ch. 5618: *L'Opus geometricum de Grégoire de Saint-Vincent.*

Nazakatullah. 3948: Asymptotic reduced-width amplitude distributions. 3949: (with Porter, Charles E.) Expectation-value distributions.

Nazarova, L. A. 254: (with Rolter, A. V.) On irreducible representations of the  $p$ -group over  $Z_p(e)$ .

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Nedjalkov, I. P. 2329: The separation of potential fields. 7195: The complex interpretation of potential fields.

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Neeme, L. N. 1579: On Gegenbauer polynomials.

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Nef, Walter. 7533: ★Lehrbuch der linearen Algebra.

Negrepontis, Stelios. 782: (with Comfort, W. W.) Extending continuous functions on  $X \times Y$  to subsets of  $\beta X \times \beta Y$ .

Negrescu, L. 2368: (with Păvăloiu, I.) On formal verifications of logical networks of algorithms.

Neimark, Ju. I. *See* Neimark, Ju. I.

Neimark, Ju. I. 6212: (with Fišman, L. Z.) Behavior in the large of

phase trajectories of quasi-linear differential equations with retarded arguments. 990: (with Fufaev, N. A.) Stability of the equilibrium states of nonholonomic systems. 1636: (with Šil'nikov, L. P.) A case of generation of periodic motions.

Neištadt, L. *See* Neustadt, L.

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Nemet, A. B. 5527: Games formed with the aid of one and the same matrix.

Nemyckii, V. V. 6234: (with Bylov, B. F.; Vinograd, R. È. and Grobman, D. M.) ★Theory of Ljapunov exponents and its application to problems of stability.

Nerlove, Marc. 8599: (with Wallis, Kenneth F.) Use of the Durbin-Watson statistic in inappropriate situations. 3993: (with Couts, D. and Grether, D.) Forecasting non-stationary economic time series.

Nerode, A. 1180: Combinatorial series and recursive equivalence types. 2465: Diophantine correct non-standard models in the isols. 5672: Non-linear combinatorial functions of isols.

Nersesjan, A. B. 5459: (with Ambarcumjan, R. V.) The critical thickness of a randomized one-dimensional transfer model.

Nesbit, Richard Allison. 8833: Several applications of the direct method of Liapunov.

Nešetřil, Jaroslav. 1230: *K*-chromatic graphs without cycles of length  $\leq 7$ .

Nessel, R. J. 4777: (with Butzer, P. L.) Contributions to the theory of saturation for singular integrals in several variables. I. General theory.

Nesterov, A. A. 8846: Synthesis of the optimal control in the case of complex roots of the characteristic equation.

Neuber, H. 2242: Theorie der elastischen Stabilität bei nichtlinearer Vorrverformung. 5353: Über Probleme der Spannungskonzentration im Cosserat-Körper. 7086: Statische Stabilität nichtlinear elastischer Kontinua mit Anwendung auf Schalen. 7087: Die Stabilität der Kugelschale unter Außendruck bei nichtlinear elastischer und plastischer Formänderung.

Neuberger, J. W. 622: ↑An exponential formula for one-parameter semi-groups of non-linear transformations.

Neubrunn, Tibor. 6016: Remark on absolute continuity of measures.

Neuman, Charles P. 4022: (with Narendra, Kumpati S.) Stability of a class of differential equations with a single monotone nonlinearity.

Neuman, František. 97: On ordering vertices of infinite trees. 2980: Note on the second phase of the differential equation  $y' = q(t)y$ .

Neumann, Heinz. 5287: Über Fehlerabschätzungen zum Romberg-Verfahren.

Neumann, M. 6615: (with Dragomir, P.) On a property which is valid in hyperbolic and elliptic geometry. 6612: (with Bica, M. and Stanciu, L.) Area of triangles in hyperbolic and elliptic geometry.

Neumann, Peter M. 5931: (with Heineken, Hermann) Identical relations and decision procedures for groups.

Neustadt, L. 7255: General theory of variational problems with applications to optimal control. 4030: (with Halkin, Hubert) General necessary conditions for optimization problems.

Neuts, Marcel F. 877: The single server queue with Poisson input and semi-Markov service times. 8461: Waitingtimes between record observations.

Nevanlinna, Rolf. 1491: (with Paatero, V.) ★Einführung in die Funktionentheorie. *See also* Festband zum 70. Geburistag von Rolf Nevanlinna, #2386; Künzi, H. P. and Louhivaara, I. S., #2419 and Louhivaara, Ilpo Simo, #2420.

Nevel'son, M. B. 1632: Stability in the large of a trajectory of the Markov processes of diffusion-type. 7233: (with Has'minskii, R. Z.) Stability of stochastic systems.

Neveu, Jacques. 7775: Sur les générateurs d'un automorphisme d'un espace de probabilité. 5116: (with Hanen, A.) Atomes conditionnels d'un espace de probabilité.

Nevostruev, L. M. 4767: (with Volkodavov, V. F.) On solving the first Cauchy-Goursat problem for the equation  $F$ .

Newberger, S. M. 6574: The primitive operators of an algebra of singular integral operators.

Newbery, A. C. R. 3753: Interpolation by algebraic and trigonometric polynomials.

Newburg, Edward A. 5502: (with Árnason, Geirmundur and Brown, Philip S.) A case study of the validity of finite difference approximations in solving dynamic stability problems.

Newman, D. J. 4890: (with Shapiro, H. S.) Certain Hilbert spaces of entire functions.

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Newman, M. F. 2694: (with Gupta, N. D.) On metabelian groups. 233: (with Kovács, L. G.) On critical groups.

Newman, M. H. A. 1999: The engulfing theorem for locally tame sets. 3557: The engulfing theorem for topological manifolds.

Newman, Malcom-K. *See* Newman, M. F. 4287: (with Brualdi, R. A.) Proof of a permanent inequality.

Newman, Morris. 4217: Classification of normal subgroups of the modular group.

Newton, D. 868: On Gaussian processes with simple spectrum. 6028: (with Parry, William) On a factor automorphism of a normal dynamical system.

Ney, Andrei. 3151: Algorithmes infinis dans un groupe topologique.

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Paige, E. C. 1808: A generalization of a commutator theorem of Mikusinski.

Pai Shang-shu. *See* Discourses on the history of mathematics of the Sung and Yuan period, #2403.

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Palero, Baltasar R.-Salinas. *See* R.-Salinas, Baltasar.

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Paljutkin, V. G. 1867: Invariant measure on a compact ring group. 8211: (with Kac, G. I.) Finite ring groups.

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Parnasskij, I. V. 1947: Degenerate conformal geometries. 1959: Degenerate Riemannian geometries.

Parodi, Maurice. 1122: ★Mathématiques appliquées à l'art de l'ingénieur. Tome I: Notions d'algèbre. Applications à l'électricité. 1123: ★Mathématiques appliquées à l'art de l'ingénieur. Tome II: Fonctions de variable réelle. 1124: ★Mathématiques appliquées à l'art de l'ingénieur. Tome III: Fonctions de variable complexe. Analyse symbolique. 1125: ★Mathématiques appliquées à l'art de l'ingénieur. Tome IV: Équations différentielles. 1126: ★Mathématiques appliquées à l'art de l'ingénieur. Tome V: Équations aux dérivées partielles. 1585: Matrices d'opérateurs linéaires et polynômes orthogonaux. Application: Polynômes de Bernoulli et polynômes de Tchebycheff. 2960: Formules sommatoires pour les fonctions de Bessel. 4565: Sur certaines relations vérifiées par les polynômes de Legendre.

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Paškurić, N. I. 1931: (with Bilousov, V. P.) On a property of the rotation field and its consequences.

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sional differential equations of the second order. 2803: On certain aspects of the general theory of convex functions. 6181: A multi-dimensional linear differential equation of the second order with constant coefficients. 6207: On a multiplicative integral. 7849: Bounded solutions of differential equations of second order. 1905: (with Krasnosel'skii, M. A.; Povoloskii, A. I. and Zabreiko, P. P.) ★Vektorfelder in der Ebene. 6738: (with Krasnosel'skii, M. A.; Povoloskii, A. I. and Zabreiko, P. P.) ★Plane vector fields.

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Pinl, M. 8289: Minimalflächen und Isotrope Kurven im Riemannschen Raum.

Pinsky, Aron Grigor'evič. *See* Vladimirov, D. A.; Vulikh, B. Z. and Kantorovič, L. V., #20.

Pinsky, M. S. 1100: Gaussian sources.

Pintacuda, Nicolò. 8878: Shannon entropy: A more general derivation.

Pintér, L. 6264: (with Moór, A.) Untersuchungen über den Zusammenhang von Differential- und Funktionalgleichungen. I.

Piper, F. C. 1912: On elations of finite projective spaces of odd order.

Pipkin, Allen C. 3839: (with Rivlin, Ronald S.) Mechanics of rate-independent materials. 7089: (with Rivlin, R. S.) Electrical, thermal and magnetic constitutive equations for deformed isotropic materials.

Piranian, George. 2794: Points of continuity of differentiable jump functions. 4462: Bounded radial variation and divergence of power series.

Piron, C. 3894: Axiomatique quantique.

Pisareva, N. M. 741: Weyl spaces admitting a transitive group of motions with a decomposing stationary (linear) subgroup.

Písek, Milan. 5518: (with Kaška, Josef) Quadratic-linear fractional programming.

Pisot, Charles. 5808: Ensembles remarquables de nombres algébriques.

Pitcher, T. S. 841: (with Kinney, J. R.) Dimensional properties of a random distribution function on the square.

Pittel', B. G. 1097: On asymptotic properties of a certain variant of the Goore's game. *See also* #1097

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Pjasecki, S. A. 1937: On the equicentroaffine theory of space curves.

Pjatekii-Sapiro, I. I. 4729: (with Gel'fand, I. M.) The Laplace operator on the Riemann surfaces and the theory of representation. 2581: (with Šafarevič, I. R.) Galois theory of transcendental extensions and uniformization. 7811: (with Šafarevič, I. R.) Galois theory of transcendental extensions and uniformization.

Plaat, Otto. 8019: Linear difference operators on periodic functions.

Plaineaux, Jean. 2181: (with Claerhout, Jeannine) Interprétation géométrique de la méthode des approximations successives de Picard. 3820: (with Debuysscher, Willy) Intégration de l'équation différentielle linéaire du 2<sup>o</sup> ordre, avec conditions aux limites, par la méthode graphique de Drymael.

Plaksin, G. I. 8108: On a problem of I. M. Gel'fand.

Plaksina, A. I. 3018: (with Falzibaev, È. F.) Certain properties of solutions of nonlinear differential equations with slowly varying parameters.

Platonov, V. P. 2768: Locally projectively nilpotent subgroups and nilelements in topological groups. 2769: The structure of topological locally projectively nilpotent groups and groups with a normalizer condition.

Pleasants, P. A. B. 1288: The representation of primes by cubic polynomials.

Plebański, Jerzy. 3977: Lorentz equations in spinorial form.

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Plessner, A. I. 4505: Behavior of analytic functions on the boundary of their region of definition.

Plessner, Yakir. 8813: (with Heady, Earl O.) Competitive equilibrium solutions with quadratic programming.

Pleszczyńska, E. 892: Sample size necessary for divergence of hypotheses.

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Plonka, J. 1427: Representation theorems for idempotent quasi-Abelian semigroups and distributive quasi-lattices. 5729: Exchange of independent sets in abstract algebras. III. 5730: On functionally uniform symmetrical algebras.

Plotkin, B. I. 5937: (with Kemhadze, S. S.) A scheme for constructing radicals in groups.

Plotnikov, V. I. 6591: (with Morozov, S. F.) Hölder continuity properties of generalized solutions of multi-dimensional variational problems.

Plotnikova, G. V. 6227: (with Bainov, D. D.) Periodic vibrations of a mechanical system with  $n$  degrees of freedom in the presence of resonance frequencies.

Plüme, Z. 4513: Solution of the Poincaré problem of potential theory in the case of an open contour.

Plume, Z. J. *See* Plüme, Z.

Plummer, Michael D. 2489: (with Harary, Frank) On the point-core of a graph.

Pobivance, Ľ. P. 1757: Tauberian theorems of M. V. Keldyš type for the Cesàro means.

Pócsik, G. 2276: On equivalent vector fields.

Podkorytin, A. S. 703: On a certain class of four-dimensional minimal surfaces of a six-dimensional biaffine space. 1941: The minimal  $X_4$  of the spaces  $E_6$  admitting a mapping onto developable  $X_2$  of a complex  $A_3$ .

Pogorelenko, V. A. 7928: (with Sobolevskii, P. E.) Non-local existence theorem of solutions of non-linear hyperbolic equations in a Hilbert

space. 8014: (with Sobolevskii, P. E.) Hyperbolic equations in a Banach space.

Pogorelov, A. V. 3400: ★Lectures on the foundations of geometry. 3401: ★Lectures on the foundations of geometry. 3842: ★Strictly convex shells in supercritical deformations. I. Spherical shells. 3843: ★Geometric theory of stability of shells. 8268: Regular decomposition of the Lobachevskii space.

Pogorselaki, W. 1811: ★Integral equations and their applications. Vol. I.

Pohjaev, S. I. 6569: (with Dubinskii, Ju. A.) A class of operators and solvability of quasi-linear elliptic equations.

Pohl, William F. 3477: Connexions in differential geometry of higher order.

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Pokazeev, V. I. 1520: On the existence of functions subjected to a linear substitution under transformations of a certain Fuchsian group. 1521: A representation for generalized analytic automorphic functions. 4514: A Hilbert boundary value problem on a slit Riemann surface with boundary.

Polak, E. 5511: (with Larsen, A.) Some sufficient conditions for continuous linear-programming problems. 7238: (with Canon, M. and Cullum, C.) Constrained minimization problems in finite-dimensional spaces.

Poliček, E. M. 1805: On the Fourier-Gâteaux integral.

Poljakov, E. A. 1190: On certain properties of algebras of recursive functions. 2452: (with Lavrov, I. A.) Bases of algebras of recursive functions.

Poljanskii, A. A. 5786: Solution of the Hardy-Littlewood problem and its indeterminate analogue in sectors and contours.

Polkinghorne, J. C. 3903: Analytic properties of Feynman integrals. 3897: (with Eden, R. J.; Landshoff, P. V. and Olive, D. I.) ★The analytic S-matrix.

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Pollak, Edward. 3832: On the survival of a gene in a subdivided population.

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Pelosuev, A. M. 7490: Certain arithmetic properties of recurrent functions with variable coefficients. 1277: (with Nechaev, V. I.) The distribution of non-residues and primitive roots in a sequence which satisfies a finite-difference equation with polynomial coefficients.

Položii, G. M. 357: ★Generalization of the theory of analytic functions of a complex variable,  $p$ -analytic and  $(p, q)$ -analytic functions and some of their applications. 7045: On a modification of the formula of summary representations of the generalized biharmonic equation. 7814: Remark on a class of  $p$ -analytic functions connected with axially symmetric problems in the theory of elasticity. 2216: (with Prihod'ko, O. M.) Transformation formulas for summary representations. 5319: (with Skorobogat'ko, A. A.) On a certain class of formulas of summary representations.

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Pontier, Sylviane. 1400: Sur les groupes (demi-groupes) dont le treillis des sous-groupes (sous-demi-groupes) est géométrique. 7663: Demi-groupes dont le treillis des sous-demi-groupes est géométrique. Groupes dont le treillis des sous-groupes est géométrique. Propriétés annexes.

Pontrjagin, L. S. 1439: ★Topological groups. 4033: On the theory of differential games.

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Pool, James C. T. 3895: Mathematical aspects of the Weyl correspondence.

Popa, Ilie. 1949: (with Gheorghiev, Gheorghe) Remarques sur l'algèbre intérieure.

Popa, Nicolae. 8156: Injective objects in the category of ordered Archimedean spaces with axial element.

Popadić, M. S. 2473: On the general induction principle.

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Popova, I. A. 6992: (with Ladyženskii, L. A. and Hoxioskii, S. A.) Calculation of Bessel functions and Legendre polynomials of high orders.

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Popovici, Iulian. 107: (with Gheorghe, Cezar) Algèbres de Clifford généralisées. 725: (with Gheorghe, Cezar) Interprétation géométrique des groupes spinoriels. 2711: (with Gheorghe, Cezar) Geometric interpretation of spinor groups. 5012: (with Gheorghe, Cezar) Une extension de la théorie des spineurs.

Popoviciu, Tiberiu. 2480: Sur les fonctions constantes par segments. 6000: Sur certaines inégalités qui caractérisent les fonctions convexes.

Popoviciu-Moldovan, Elena. 1748: Sur la convergence de certaines suites de fonctions.

Popp, H. 5821: Zur Reduktionstheorie algebraischer Funktionenkörper vom Transzendenzgrad. I. Existenz einer regulären Reduktion zu vorgegebenem Funktionenkörper als Restklassenkörper.

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Porter, A. Duane. 1307: Trilinear equations in a finite field. 1308: Systems of one quadratic and two bilinear equations in a finite field.

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de Possel, René. 830: Sur les variétés à deux dimensions, les ensembles de capacité maximale et le prolongement des variétés conformes.

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Potlov, V. V. 1594: Comparison theorems for homogeneous differential equations.

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Pour-El, Marian Boykan. 7370: (with Putnam, Hilary) Recursively enumerable classes and their application to recursive sequences of formal theories.

Povolozhki, A. I. 1995: (with Krasnosel'skii, M. A.; Perov, A. I. and Zabreiko, P. P.) ★Vektorfelder in der Ebene. 6738: (with Krasnosel'skii, M. A.; Perov, A. I. and Zabreiko, P. P.) ★Plane vector fields.

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Powell, Robert E. 1753: The  $L(r, t)$  summability transform.

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Praporgescu, N. 4549: A generalization of the  $\theta$  function and its use in the study of elliptic functions. II.

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Prüss-Crampe, Sibylla. 7600: Archimedisch angeordnete Ternärkörper.

Prigorskii, V. A. 1830: On some classes of bases in Hilbert space.

Prihod'ko, O. M. 7047: An application of the method of summary representations to the numerical solution of biharmonic problems. 2216: (with Položii, G. M.) Transformation formulae for summary representations.

Prikazčikov, V. G. 413: Asymptotic behavior of the eigenvalues for schemes of higher order of accuracy in the class of piecewise continuous coefficients. 3805: A difference problem on eigenvalues for an elliptic operator.

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Prill, David. 6807: Cones in complex affine space are topologically singular.

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Pringle, R. M. 8564: (with Rayner, A. A.) A note on generalized inverses in the linear hypothesis not of full rank.

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Prodi, Giovanni. 1664: Soluzioni periodiche di equazioni di tipo iperbolico non lineare. 4658: Soluzioni periodiche dell'equazione delle onde con termine dissipativo non lineare.

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Prouse, Giovanni. 3066: Solutions presque-périodiques de l'équation non homogène des ondes avec terme dissipatif non linéaire.

Prugovečki, Eduard. 1032: A formalism for generalized quantum mechanics.

Prutkina, L. A. 4392: (with Kontorovič, P. G.) Certain equivalence classes of semigroups.

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Pienišny, B. N. 4007: A dual method in extremal problems. I. 4008: A dual method in extremal problems. II. 5554: Synthesis of linear pulse systems. 2369: (with Onopóuk, Ju. N.) On an application of a binary algorithm.

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 Pucci, Carlo. 4674: Su una limitazione per soluzioni di equazioni ellittiche. 7900: Operatori ellittici estremanti.  
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 Pulk'kin, S. P. 1818: A singular integral equation with two fixed singularities. 6336: (with Lerner, M. E.) Uniqueness of a solution of problems with Frankl' and Tricomi conditions for the general Lavrent'ev-Bicadze equation.  
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Rohatgi, V. K. 2128: A comparison of bounds for the number of common treatments between any two blocks of certain two-associate PBIB designs. 5140: (with Heyde, C. C.) A pair of complementary theorems on convergence rates in the law of large numbers.

Rohde, Hanns-Walter. 1742: Bemerkung zur Funktionalgleichung  $f(s+1) = \Phi(s)f(s)$ .

Rohleder, H. 8887: Das Syntheseproblem der Schaltalgebra und seine mathematische Formulierung.

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Roşa, Radu. 1938: On isotropic curves. 1939: On a class of central frames. 5002: Sur les congruences de Vincensini dont les nappes focales forment un couple de Thybaut. 6663: On a type of congruence ( $\omega$ ). 6663: On helicoids of minimal area in elliptic space. 8290: Sur les surfaces de Lie-Ribaucour. 8298: Sur une classe de réseaux Darboux-Tzitzéica.

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Rozendorn, È. R. 1967: Weakly irregular surfaces of negative curvature.

Rosenfel'd, B. A. 5615: Arabic and Persian manuscripts on physics and mathematics in the libraries of the Soviet Union. 6594: ★Multidimensional spaces. 5612: (with Karpova, L. M.) A treatise of Thabit ibn Qurra on composite ratios. 2416: (with Bašmakova, I. G.; Gel'fond, A. O.; Rybnikov, K. A. and Janovskaja, S. A.) Adolf Pavlovič Juškevič.

Rosenstein, G. S. 5560: (with Valsbord, È. M.) Lifetime of stochastic automata.

Rozental', A. L. 2926: Martin entrance boundary for a Brownian motion with an oblique reflection. 6012: Sufficient subspaces for a space of functions defined on a countable set.

Rozin, S. G. 2150: (with Matjuškov, L. P.) A method of using the electronic computer MINSK-2 for providing pseudo-random numbers.

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Rubinstein, A. I. 1777: Coefficients of lacunary series. 553: (with Golubov, B. I.) A class of convergence systems.

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Rund, H. 1897: Variational problems involving combined tensor fields. 2267: A Hamiltonian formalism in relativistic theories.

Rundle, Bede. 1167: A basis for set theory.

Rung, D. C. 6109: (with Cima, J. A.) Normal functions and a class of associated boundary functions.

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Rushing, T. B. 8374: On countably compact nonlocally compact spaces.

Rusin, K. C. 1890: An integral equation involving generalized Laguerre polynomial. 6339: On certain asymmetric mixed boundary value problems for a half-space with a cylindrical cavity.

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Rvačev, V. L. 1899: Algorithmic completeness of the means of analytic geometry.

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Ryan, C. 5445: (with Okubo, S.; Marshak, R. E. and Goldberg, H.) The maximal chiral group with the quark model.

Ryan, Frank B. 2893: The set of asymptotic values of a bounded holomorphic function. 2894: A characterization of the set of asymptotic values of a function holomorphic in the unit disc.

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Rybníková, N. M. 4982: (with Rybníkov, A. K.) A new proof of non-existence of a projective plane of order 6.

Rychlewski, Jan. 5366: Sur l'écoulement initial plastique d'un demi-espace dû à une distribution donnée de la vitesse.

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rature formulas of Gaussian type which are exact for functions of a Čebyšev-Haar system.

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Šabirov, T. 1893: (with Esajan, A. R.) The question of convergence of the averaging method of functional corrections.

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$$\frac{dy}{dx} = -\frac{c_{10}x + c_{01}y + c_{20}x^2 + c_{11}xy + c_{02}y^2}{b_{10}x + b_{01}y + b_{20}x^2 + b_{11}xy + b_{02}y^2}.$$

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Sims, Charles C. 4348: Graphs and finite permutation groups. 2560: (with Iwasawa, Kenkichi) Computation of invariants in the theory of cyclotomic fields.

Sindalovskii, G. H. 1463: On the construction of continuous functions with given differential properties on a set of complete measure and certain applications to Fourier series.

Singer, Ivan. 1832: Some remarks on best approximation in normed linear spaces. II. 6509: (with Foiaș, Ciprian) On bases in  $C([0, 1])$  and  $L^1([0, 1])$ .

Singh, B. 1809: On certain theorems in operational calculus.

Singh, B. D. 6975: (with Singh, D.) Some remarks on double sampling for stratification.

Singh, Daroga. 6975: (with Singh, B. D.) Some remarks on double sampling for stratification.

Singh, Darshan. 1961: Associate, normal, union, hypergeodesic and hypersymptotic curvatures of higher orders of a vector field with respect to a curve.

Singh, H. R. 6966: Producer and consumer risks in non-normal populations.

Singh, K. D. 5043: (with Lane, N. D.) Characteristic and order of conically differentiable points. 8308: (with Lane, N. D.) Order and characteristic of parabolically differentiable points.

Singh, K. P. 5483: (with Sharan, R.) Product of two surfaces in general relativity.

Singh, M. P. 5250: On the estimation of ratio and product of the population parameters.

Singh, Prem. 4498: On the order and type of an integral function of exponential type defined by Dirichlet series. 1505: (with Srivastava, R. S. L.) On the  $\lambda$ -type of entire functions of irregular growth defined by Dirichlet series.

Singh, R. P. 2963: Associated Legendre functions.

Singh, Rajinder. 2111: (with Ghosh, J. K.) Unbiased estimation of location and scale parameters.

Singh, Virendra. 3943: Lie group of the strong-coupling theory. I. Calculation of the coupling-constant ratios and magnetic moments for symmetric pseudoscalar-meson theory.

Singleton, Robert. 1231: On minimal graphs of maximum even girth.

Singmaster, David. 6633: (with Singmaster, Gerald) Forbidden regions are convex.

Singmaster, Gerald. 6633: (with Singmaster, David) Forbidden regions are convex.

Sinha, I. 1338: Commutators in nilpotent linear groups of class two. 2723: On the augmentation-maps of the subgroups of a group.

Sinha, R. S. 772: (with Mishra, R. S.) Union and hypersymptotic curves of a Finsler subspace and hypersurface.

Sinha, S. R. 4096: The late Prof. B. N. Prasad.

Sinjukov, N. S. 1962: On the theory of a geodesic mapping of Riemannian spaces.

Sion, M. 297: (with Willmott, R. C.) Hausdorff measures on abstract spaces.

Sison, F. M. 5720: Natural equational bases for Newman and Boolean algebras. 5958: (with Monk, D.)  $m$ -semigroups, semigroups, and function representations.

Sirazetdinov, T. K. 2359: The maximum principle of L. S. Pontrjagin in the theory of linear optimal processes with distributed parameters. 6302a: Stability of processes with distributed parameters. I. 6302b: Stability of processes with distributed parameters. II.

Širinkulov, T. 3846: (with Badalov, F.) On the solution of the differential equation of forced vibrations of rectangular orthotropic plates on a rigid support with two characteristics.

Širjaev, A. N. 4045: Stochastic equations of non-linear filtering of jump-like Markov processes.

Širohov, M. F. 1241: Sequences of decompositions of a Boolean algebra.

Širokov, A. P. 1950: On the theory of spaces definable by commutative algebras.

Širota, A. I. 7720: Decomposition of linear representations of the symplectic and orthogonal groups induced by a representation of the full linear group. See also Hadwiger, H., #6638.

Širotin, Ju. I. See Širotin, Ju. I.

Širotin, Ju. I. 8703: Tensor functions of polar and axial vectors compatible with texture symmetry.

Širovich, Lawrence. 8718: Initial and boundary value problems in dissipative gas dynamics. 3863: (with Thurber, James K.) On the propagation of free sound waves in rarefied gas dynamics.

Širuge, M. 5428: (with Kastler, D. and Trotin, J. C.) Commutants of certain operator algebras on Fock space.

Siskind, V. 7224: A solution of the general stochastic epidemic.

Sisler, Miroslav. 3770: Approximative Formeln für den Fehler bei Iterationsverfahren.

Šil'marev, I. A. 4726: Exact estimates of the eigenfunctions of the biharmonic operator. 3138: (with Il'in, V. A.) On accurate estimates of eigenfunctions in a closed domain. 4689: (with Il'in, V. A.) On the theory of linear equations with discontinuous coefficients.

Šilov, V. S. 2171: On fixed couples of points of the iterative process for determining eigenvalues.

Sitaraman, Y. 6378: A note on logarithmic summability (L).

Siwek, Edward. 1998: Une propriété des  $p$ -cônes dans l'espace euclidien à  $n$  dimensions.

Sjöberg, Boris. 2918: Über Funktionen, die in einer Kugel  $\delta$ -subharmonisch sind. 2019: Ein potentialtheoretisches Analogon zum ersten Hauptatz der Wertverteilungslehre. 4878: On derivatives in topological vector spaces.

Skaček, B. Ja. 8006: Asymptotic distribution of eigenvalues of singular differential operators.

Skačkov, B. N. 1623: On the stability of the zero solution for a certain class of  $n$ th order differential equations.

Skateckil, V. G. 2970: Integrability conditions in finite form for certain systems of ordinary differential equations of the second order. 6182: Solution in finite form of certain systems of ordinary differential equations of second order.

Skendžiš, Marija. 4839: The analytic solutions of Mikusinski operational differential equations.

Skibinsky, Morris. 6914: Adequate subfields and sufficiency.

Skidmore, A. Samanich. 3033: On the stability of solutions of a differential equation of fourth order.

Škil', M. I. 4587: Reduction of systems of linear differential equations to the generalized  $L$ -diagonal form.

Škil', N. I. See Škil', M. I.

Škiljarenko, E. G. 2016: Certain remarks on limit spaces of Postnikov systems.

Škiljarević, A. N. 7298: Reliability indices of a finite automaton. 7299: The average time of serviceable work of a finite automaton.

Škopin, A. I. 4343: Ideal of relations. 5803: (with Borevič, Z. I.) Extensions of a local field with a normal basis for principal units.

Škordev, Dimit'r. 54: On the concept of a recursively complete arithmetic operation. 8160: (with Čakalov, Vladimir) Representation of positive linear functionals defined in the space of homogeneous real polynomials of a given even degree.

Škorník, K. 547: A theorem on approximation in the class  $L^p$ .

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Škorobagat'ko, A. A. 4655: Certain comparison theorems for elliptic differential equations. 5319: (with Polodil, G. M.) On a certain class of formulas of summary representations.

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Skrivnik, I. V. 754:  $A$ -harmonic fields with singularities.

Skrjabin, L. P. 1726: (with Rutner, Ja. F.) Application of the Wiener-Hopf method to the solution of a boundary value problem of the heat transfer equation.

Skula, Ladislav. 5696: Eine Bemerkung über Kardinalpotenzen. 6733: Systeme von stetigen Abbildungen.

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Slater, Lucy Joan. 1570: ★Generalized hypergeometric functions. 4554: ★Confluent hypergeometric functions.

Slater, Morton L. 6471: On the equation  $\varphi(x) = \int_x^{x+1} K(\xi)/\varphi(\xi) d\xi$ .

Slawny, J. 7137: On self-adjointness of the Hamiltonian in the Ruijgrok-Van Hove model. Self-adjointness of the Lee Hamiltonian.

Sleeman, B. D. 391: The expansion of Lamé functions into series of associated Legendre functions of the second kind.

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Slimac, O. 6174: (with Bábek, V.) On certain functions harmonic in the sense of P. Humbert.

Slipenčuk, K. M. 1755: Summation of integrals by the Hölder and Cesáro methods of negative order.

Slišenak, A. O. 2460: On certain algorithmic problems connected with arithmetic operations on duplexes.

Slinjak, I. M. 8239: Spectrum of the Schrödinger operator with a random potential.

Slobodeckij, L. N. 3875: Generalized Sobolev spaces and their application to boundary problems for partial differential equations. See also Linear equations of math. physics, #6278.

Slobodenjuk, N. P. 8498: (with Skorohod, A. V.) Asymptotic behavior of certain functionals of the Brownian motion.

Smoliński, J. 1251: On mappings between quasi-algebras.

Slugin, S. N. 8251: (with Šádkov, V. M.) Combination of some variational methods in a Hilbert module over a series of vector spaces.

Sluhaev, V. V. 722: Certain questions of equiaffine geometry of a vector field.

Smajdor, A. 1473: On superpositions of convex functions.

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Small, Lance W. 199: Orders in Artinian rings. 200: Correction and addendum: "Orders in Artinian rings".

Smart, John Roderick. 148: On Weierstrass points in the theory of elliptic modular forms.

Šmel'kin, A. L. 1393: Free polynilpotent groups.

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Smirnov, G. P. 2531: On the representation of zero by quadratic forms. 4204: On the solution of systems of Diophantine equations containing quadratic forms.

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Smirnov, S. V. 1455: Positive definite functions on algebraic nilpotent groups over a discrete field. 2325: Projective properties of multi-dimensional nomograms.

Smirnov, V. I. See Manuscripts of L. Euler in the Archives of the Academy of Sciences of the USSR, #5620; #5621 and Problems of mathematical analysis. Boundary value problems and integral equations, #6279.

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Smital, J. 3292: On the structure of the space  $L^{(p)}$ .

Smith, David A. 7692: On semigroups, semirings, and rings of quotients.

Smith, H. A. 275: (with Belinfante, J. G. and Kolman, B.) An introduction to Lie groups and Lie algebras, with applications.

Smith, J. Wolfgang. 2027: The de Rham theorem for general spaces.

Smith, Julius. 8258: Differentiability properties of solutions to higher order double integral variational problems.

Smith, Larry. 6778: Multiplicative fibre maps. 8406: The cohomology of stable two stage Postnikov systems.

Smith, M. G. 1799: ★Laplace transform theory.

Smith, R. A. 519: Sufficient conditions for stability of a solution of difference equations.

Smith, W. W. 5859: (with Butta, H. S.) †On the integral closure of a domain.

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Smoljanov, O. G. 2817: Measurable polylinear and power functionals in certain linear spaces with measure. 6017: Measurability and non-measurability of subsets of certain function spaces with measure.

Smoljanskii, S. A. 573: (with Flajšer, N. M.) A method for solving Fredholm integral equations of the second kind.

Smorodinskii, Ja. A. 7722: (with Vilenkin, N. Ja. and Kuznecov, G. I.) Eigenfunctions of the Laplace operator providing representations of the  $U(2)$ ,  $SU(2)$ ,  $SO(3)$ ,  $U(3)$  and  $SU(3)$  groups and the symbolic method. 5474: (with Winteritz, P. and Uhlif, M.) On relativistic angular momentum theory.

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Šmukler, A. I. 8065: On certain special trigonometric series.

Šmulev, I. I. 475: Almost periodic solutions of a parabolic equation.

Šmul'jan, Ju. L. 620: Composition of operators in finite-dimensional spaces with an indefinite metric. 615: (with Krein, M. G.) A class of operators in a space with an indefinite metric. 4923: (with Krein, M. G.) On the plus-operators in a space with an indefinite metric. 8183: (with Krein, M. G.) 5-polar representations of plus-operators.

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Smyth, Brian. 6697: Differential geometry of complex hypersurfaces.

Smythe, N. 807: (with Holmes, R.) Algebraic invariants of isotopy of links.

Smythe, William R., Jr. 5513: (with Johnson, Lynwood A.) ★Introduction to linear programming with applications.

Sneddon, I. 3893: (with Mott, N.) ★Wave mechanics and its applications. See also Gel'fond, A. O. and Linnik, Ju. V., #1252.

Šneider, V. E. 3517: Baire functions in countable union spaces.

Snell, J. Laurie. 6858: (with Kemeny, John G. and Knapp, Anthony W.) ★Denumerable Markov chains.

Šneperman, L. B. 277: Representations of topological semigroups. 624: The fixed point of a semigroup of transformations and invariant integration. 8203: A fixed point of a semigroup of transformations and invariant integration on a bicompact semigroup.

Šneps, M. 8506: (with Jonina, G.) Statistical equivalence of time and call estimates in queuing systems.

Šneps, M. A. See Šneps, M.

Snow, Donald R. 8852: Carathéodory-Hamilton-Jacobi theory in optimal control.

Snyder, Martin Avery. 5257: ★Chebyshev methods in numerical approximation.

Šobčuk, V. S. 755: Uniqueness theorems for curves and hypersurfaces in a Riemannian space.

Sobel, M. 6819: (with Barndorff-Nielsen, O.) On the distribution of the number of admissible points in a vector random sample. 6895: (with Olkin, Ingram) Integral expressions for tail probabilities of the multinomial and negative multinomial distributions.

Sobel', I. M. 3789: An integral occurring in the theory of quadrature formulae.

Sobolev, S. L. 2183: The theory of cubature formulae. 3391: On the density of finite functions in  $L_p^{(D)}$ . 4703: ★Equations of

mathematical physics. 5288a: Some questions of the theory of cubature formulas. 5288b: Errata: "Some questions of the theory of the formulas of approximative integration".

Sobolevskii, P. E. 6273: Equations  $v'(t) + A(t)v(t) = f(t)$  in a Hilbert space, with  $A(t)$  a positive definite selfadjoint operator depending measurably on  $t$ . 6274: Investigation of general boundary value problems for parabolic equations by the method of differential equations in a Banach space. 4657: (with Krasnosel'skii, M. A.) On some non-linear problems for the partial differential equations. 4927: (with Mamedov, Ja. D.) On a theorem of E. Hille. 7928: (with Pogorelenko, V. A.) Non-local existence theorem of solutions of non-linear hyperbolic equations in a Hilbert space. 8014: (with Pogorelenko, V. A.) Hyperbolic equations in a Banach space. 7929: (with Raskin, V. G.) The Cauchy problem for differential equations of second order in Banach spaces. 6568: (with Krasnosel'skii, M. A.; Zabreiko, P. P. and Pustyl'nik, E. I.) ★Integral operators in spaces of summable functions.

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Sobneva, V. A. 3082: The Cauchy problem for systems of linear partial differential equations with variable coefficients. 468: (with Fridlender, V. R.) Gevrey solutions of partial differential equations. 6519: (with Fridlender, V. R.) Hypoelliptic equations in two variables.

Soda, D. 1370: Some groups of type  $D_4$  defined by Jordan algebras. 2674: On a theorem of Manning.

Sokolov, Ju. D. 5632: (with Erugin, N. P.; Feščenko, S. F. and Lykova, O. B.) Jurij Alekseevič Mitropol'skii.

Sokolov, N. P. 181: Multiplicative and spectral properties of spatial matrices with nonnegative elements. 4281: Operations on multi-dimensional matrices.

Sokolovskii, A. V. 5772: The distance between "neighboring" simple ideals.

Sokolovskii, T. D. 3771: Calculation of eigenvalues of a Hermitian matrix.

Solem, Richard R. 8617: Eine Mittelwertmethode zur Anpassung einer Funktion an Beobachtungspunkte.

Soler, A. I. 7905: (with Brull, M. A.) A new perturbation technique for differential equations with small parameters.

Solian, Alexandru. 1376: Characterization of some functors of modules. 2665: Foncteurs qui transforment les épimorphismes locaux en monomorphismes locaux. 7628: Theory of transi-groups. I. Equivalence relations and associated subgroups.

Solitar, Donald. 7617: (with Magnus, Wilhelm and Karrass, Abraham) ★Combinatorial group theory: Presentations of groups in terms of generators and relations.

Solodovnikov, A. S. 5034: On the question of  $V(K)$ -spaces "in the large". See also Hadwiger, H., #6638.

Sologub, V. S. 1539: On the history of the theorem on the discontinuity of the normal derivative of a surface potential. 4517: The origins of the concept of potential.

Solomentsev, E. D. 2915: On the fundamental Green's formula for harmonic functions. 7816: A three-spheres theorem for harmonic functions.

Solomon, Alan. 2262: Some remarks on the Stefan problem.

Solomonov, L. A. 5586: Realization of Boolean functions by a multi-threshold element.

Solonnikov, V. A. 4675: On general boundary value problems for systems of differential equations of elliptic and parabolic types. 4849: (with Golovkin, K. K.) Estimates for integral operators in translation invariant norms. II.

Solov'ev, A. D. 2000: A combinatorial identity and its application to the problem on the first occurrence of a rare event.

Solov'ev, V. A. 4885: Extension of a monotone norm from a normed lattice to its Dedekind completion.

Soltan, P. S. 1930: Concerning problems of covering and lighting of convex bodies. 6642: On problems of covering and lighting of convex bodies. 6643: On relations between the problems of covering and lighting of convex bodies.

Soni, Kusum. 1284: Some relations associated with an extension of Koshliakov's formula.

Sonin, V. V. 5556: (with Isaev, V. K.) Computational aspects of the problem of optimal flight as a boundary problem.

Sonja, M. G. 1870: Positive functionals in completely symmetric rings. 5148: Certain measurable subspaces of the space of all sequences with a Gaussian measure.

Sons, L. R. 2899: Value distribution and power series with moderate gaps.

Sopka, John J. 2184: On abstract numerical integrations.

Sor, L. A. 8285: Isometric non-deformable convex surfaces.

Sorace, Orazio. 672: Piani grafici non desarguesiani e sistemi ternari di Skornyakov. 8300: Superficie  $\Phi$  e sistemi  $W$ .

Sorani, Giorgio. 1360: Radical subrings of matrix rings.

Sorani, Giuliano. 1559: Integral representations of holomorphic functions. 6154: (with Villani, Vinicio)  $q$ -complete spaces and cohomology.

Sorgenfrey, R. H. 3550: (with Franklin, S. P.) Closed and image-closed relations.

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Sorokin, V. A. 694: On curves similar to their evolute. 718: Minkowski geometry with asymmetric indicatrix. 6618: Certain questions of a Minkowski geometry with a non-symmetric indicatrix.

Sorokina, N. G. 7985: Strong solvability of the Tricomi problem.

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Spanne, Sven. 7961: Sur le principe de maximum et le théorème de Fatou pour les solutions des équations elliptiques d'ordre quelconque.

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Specker, E. P. 5409: (with Kochen, Simon) Logical structures arising in quantum theory. 7335: (with Kochen, Simon) The calculus of partial propositional functions.

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Spencer, D. C. 2031: Harmonic integrals and Neumann problems associated with linear partial differential equations. 5169: De Rham theorems and Neumann decompositions associated with linear partial differential equations.

Speranza, Francesco. 734: Sui gruppi d'omonimia degli spazi a connessione proiettiva o affine generalizzati.

Sperner, Emanuel. 6666: On non-desarguesian geometries.

Spilker, M. N. 2200: Convergence and stability of step-by-step methods for the numerical solution of initial-value problems.

Spilker, Jürgen. 2943: Werte von Modulformen. 5732: Über eine Vertauschbarkeit von Addition und Multiplikation.

Spira, Robert. 2967: The nonvanishing of the Bernoulli polynomials in the critical strip. 3757: Zeros of sections of the zeta function. I. 4192: A totient function on the residue classes mod  $m$  and other semi-groups.

Spiridonov, V. 2802: (with Germanov, M.) A property of trajectories orthogonal to level lines of convex functions. 4010: (with Germanov, M.) A gradient method in non-linear programming. 8814: (with Germanov, Mil'ko) A type of problem of non-linear programming solvable by the simplex procedure.

Spitzer, F. 6868: (with Kesten, H. and Ney, P.) The Galton-Watson process with mean one and finite variance.

Spivak, M. A. 1118: Algebraic characteristic of the computation power of an automaton. 1196: (with Gohman, A. V.; Žitomirskii, G. I.; Rozen, V. V.; Rydkov, A. G.; Salii, V. N. and Šimel'fonig, O. V.) ★Collection of problems in mathematical logic and algebra of sets.

Spjøtvoll, Emil. 8558: Optimum invariant tests in unbalanced variance components models.

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Sprent, P. 5223: Fitting a polynomial to correlated equally spaced observations.

Sprindzuk, V. G. 5756: A metric theorem on the smallest integral polynomials of several variables.

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Springer, M. D. 3623: (with Thompson, W. E.) The distribution of products of independent random variables.

Springer, T. A. 5993: Some arithmetical results on semi-simple Lie algebras. 5823: (with Borel, Armand) Rationality properties of linear algebraic groups.

Sragin, I. V. 1891: The Hammerstein equation in the space of continuous functions.

Srebro, U. 7797: Groups of linear fractional transformations.

Sretenski, L. N. 13: Ivar Fredholm: Biography and scientific research.

Sridhar, R. 4038: (with Pearson, J. B., Jr.) A discrete optimal control problem. 5565: (with Bellman, R. E.; Kagiwada, H. H. and Kalaba, R. E.) Invariant imbedding and nonlinear filtering theory.

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Srinivasacharyulu, K. 831: Topology of complex manifolds.

Srinivasan, S. K. 2098: (with Iyer, K. S. S.) Random processes associated with random points on a line.

Srinivasan, T. P. 8219: Simply invariant subspaces and generalized analytic functions.

Srinivasan, V. K. 1877: On the ideal structure of the algebra of integral functions.

Srivastav, R. P. 6160: A relation between Dirac-delta function and certain infinite series involving Bessel functions.

Srivastava, H. M. 3239: On a relation between Laplace and Hankel transforms. 3240: A relation between Meijer and generalized Hankel transforms. 4576: The products of certain classical polynomials. 7832: Generalized Neumann expansions involving hypergeometric functions.

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Srivastava, K. N. 3207: On dual series relations involving Laguerre polynomials. 3241: A class of integral equations involving Laguerre polynomials as kernel. 507: (with Bhonsle, B. R.) A relation between Hankel transforms of different order.

Srivastava, M. S. 2132: Some asymptotically efficient sequential procedures for ranking and slippage problems. 8566: Comparing distances between multivariate populations: The problem of minimum distance.

Srivastava, P. K. 5982: (with Mehta, M. L.) Classification of irreducible unitary representations of compact simple Lie Groups. II.

Srivastava, R. C. 8512: Some aspects of the stochastic model for the attachment of phage to bacteria.

Srivastava, R. K. 1525: On the type of integral functions represented by Dirichlet series. 2885: On the maximum modulus of an integral function represented by Dirichlet series. 4541: (with Kumar, Vinod) Errata: On the order and type of integral functions of several complex variables.

Srivastava, R. S. L. 4499: (with Juneja, O. P.) Zeros of entire series. 1505: (with Singh, Prem) On the  $\lambda$ -type of entire functions of irregular growth defined by Dirichlet series.

Srivastava, S. R. 5206: Estimation of variance using a preliminary test of significance. 5205: (with Gupta, V. P.) Estimation after preliminary testing in ANOVA model I.

Srivastava, Satya Narain. 4500: On the geometric means of integral functions.

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Stakgold, Ivar. 5602: ★Boundary value problems of mathematical physics. Vol. I.

Stallings, John. 2666: Centerless groups—an algebraic formulation of Gottlieb's theorem.

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Plasma physics. 2309: ★Review of plasma physics. Vol. 2.

Problems in the theory of control systems. 1985: ★Problems in the theory of control systems.

Problems of mathematical analysis. Boundary value problems and integral equations. 6279: ★Problems of mathematical analysis. Boundary value problems and integral equations.

**Problems of mathematical physics.** 2393: ★Problems of mathematical physics. No. I. Spectral theory and wave processes.

**Proceedings, Annual Science Conference.** 7312: ★Belfer Graduate School of Science Annual Science Conference Proceedings: Some recent advances in the basic sciences. Vol. 1: 1962, 1963, 1964.

**Proceedings Advanced Seminar, Math. Res. Center, U.S. Army, Theoret. Chem. Inst., Univ. of Wisconsin, 1965.** 1130: Perturbation theory and its application in quantum mechanics.

**Proc. Adv. Sympos. Numer. Sol. Nonlinear Diff. Eq., Madison, Wis., 1966.** 3749: ★Numerical solutions of nonlinear differential equations.

**Proceedings of the Conference on Categorical Algebra, La Jolla, Calif., 1965.** 2646: ★Proceedings of the Conference on Categorical Algebra, La Jolla, Calif., 1965.

**Proceedings of the conference on mathematical methods of solution of problems in nuclear physics.** 2264: ★Proceedings of the conference on mathematical methods of solution of problems in nuclear physics (Dubna, November 17-20, 1964).

**Proc. Conf. Math. Theory Elem. Particles (Dedham, Mass., 1965).** 7134: ★Mathematical theory of elementary particles.

**Proc. Fifth Brazilian Math. Colloq. (1965).** 4082: ★Proceedings of the Fifth Brazilian Mathematical Colloquium.

**Proc. Fifth Internat. Universitätswochenen Kernphysik, 1966.** 3888: ★Elementary particle theories. Proceedings of the V. Internationale Universitätswochenen für Kernphysik 1966 der Karl-Franzens-Universität Graz, at Schladming (Steiermark, Austria) 24th February-9th March 1966.

**Proc. Fourth Brazilian Math. Colloq. (1963).** 4081: ★Proceedings of the Fourth Brazilian Mathematical Colloquium.

**Proceedings of the Fourth Conference of Young Moldavian Scientists.** 2394: ★Proceedings of the Fourth Conference of Young Moldavian Scientists, September, 1964 (Section on Physics and Mathematics).

**Proc. Fourth Internat. Sympos. Rarefied Gas Dynamics, Toronto, 1964.** 1013a: ★Rarefied gas dynamics. Vol. I. 1013b: ★Rarefied gas dynamics. Vol. II.

**Proc. Internat. Conf. Anal. Functions (Erevan, 1965).** 2833: ★Contemporary problems in the theory of analytic functions.

**Proceedings Internat. Conf. on Dynamic Stability of Structures, Evanston, Ill., 1965.** 2395: ★Dynamic stability of structures. Proceedings of an International Conference held at Northwestern University, Evanston, Illinois, October 18-20, 1965.

**Proc. 1964 Internat. Congr. Logic, Methodology Philos. Sci.** 2426: ★Logic, methodology and philosophy of science. Proceedings of the 1964 International Congress.

**Proceedings International Summer Institute on Cosmological Models, Lisbon, 1963.** 3984: ★Cosmological models.

**Proc. Internat. Sympos. Multivariate Analysis (Dayton, Ohio, 1965).** 8513: ★Multivariate analysis.

**Proceedings of the Second All-Union Conference on Theoretical and Applied Mechanics.** 2a: ★Analytic mechanics. Stability of motion. Celestial ballistics. Proceedings of the Second All-Union Conference on Theoretical and Applied Mechanics (January 29-February 5, 1964). Survey Reports. Vol. I. 2b: ★Vibrations. Gyroscopic. Theory of mechanisms. Mechanics of fluids and gases. Proceedings of the Second All-Union Conference on Theoretical and Applied Mechanics (January 29-February 5, 1964). Survey Reports. Vol. II. 2c: ★Mechanics of a solid body. Proceedings of the Second All-Union Conference on Theoretical and Applied Mechanics (January 29-February 5, 1964). Survey reports. Vol. III.

**Proceedings of the Second Scientific Conference of Mathematical Departments of Pedagogical Institutes of the Volga Region.** 1131: ★Proceedings of the Second Scientific Conference of Mathematical Departments of Pedagogical Institutes of the Volga Region (May 22-26, 1961), No. I.

**Proceedings Second Systems Symposium, Cleveland, Ohio, 1963.** 8861: ★Views on general systems theory.

**Proceedings Seventh Congress of the Italian Mathematical Society (Genoa, 1963).** 5603: ★Atti del Settimo Congresso dell'Unione Matematica Italiana.

**Proceedings of the Steklov Institute of Mathematics.** 5113a: ★Proceedings of the Steklov Mathematical Institute, Vol. 79. Articles on mathematical statistics and the theory of probability. 5113b: ★Proceedings of the Steklov Institute of Mathematics, Number 79 (1965). Articles on mathematical statistics and the theory of probability.

**Proceedings Summer Seminar in Applied Mathematics, Ithaca, 1963.** 2397a: ★Space mathematics. Part 1. 2397b: ★Space mathematics. Part 2. 2397c: ★Space mathematics. Part 3.

**Proceedings of Symposia in Applied Mathematics. Vol. XII: Structure of language and its mathematical aspects.** 8898: ★Proceedings of Symposia in Applied Mathematics. Vol. XII: Structure of language and its mathematical aspects.

**Proc. Third Brazilian Math. Colloq. (1961).** 4080: ★Proceedings of the Third Brazilian Mathematical Colloquium.

**Proceedings of the Third Internationale Hochschulwochenen für Kernphysik 1964.** 2288: ★Weak interactions and higher symmetries. Proceedings of the Third Internationale Hochschulwochenen für Kernphysik 1964 der Karl-Franzens-Universität Graz, at Schladming (Steiermark, Austria) 24th February-7th March 1964.

**Proceedings of the Third Summer School on Theoretical Physics (Dolina Chocholowska, 1963).** 7313: ★Summer School on Theoretical Physics held at Dolina Chocholowska, 1963.

**Quantum mechanics, perturbation theory and its application in.** 1130: ★Perturbation theory and its application in quantum mechanics.

**Quantum theory of systems with many degrees of freedom.** 5404: ★Quantum theory of systems with many degrees of freedom. Symposium held at Keszthely, September, 1964.

**Questions of numerical mathematics and computing technology.** 2142: ★Questions of numerical mathematics and computing technology.

**Rarefied gas dynamics.** 1013a: ★Rarefied gas dynamics. Vol. I. 1013b: ★Rarefied gas dynamics. Vol. II.

**Research papers in statistics.** 8514: ★Research papers in statistics.

**Reviews of plasma physics.** 2309: ★Reviews of plasma physics. Vol. 2.

**Satyendra Nath Bose: 70th birthday commemoration volume.** 1152: ★Satyendra Nath Bose: 70th birthday commemoration volume. Part I. 7314: ★Satyendra Nath Bose: 70th birthday commemoration volume. Part II.

**Schémas en groupes.** 7517: ★Schémas en groupes. Fasc. 1: Exposés 1 à 4. 7518: ★Schémas en groupes. Fasc. 2a: Exposés 5 et 6. 7519: ★Schémas en groupes. Fasc. 2b: Exposés 7a et 7b. 7520: ★Schémas en groupes. Fasc. 3: Exposés 8 à 11. 7521: ★Schémas en groupes. Fasc. 4: Exposés 12 à 14. 7522: ★Schémas en groupes. Fasc. 5a: Exposés 15 et 16. 7523: ★Schémas en groupes. Fasc. 5b: Exposés 17 et 18. 7524: ★Schémas en groupes. Fasc. 6: Exposés 19 à 22. 7525: ★Schémas en groupes. Fasc. 7: Exposés 23 à 26.

**The selected papers of E. S. Pearson.** 3685: ★The selected papers of E. S. Pearson.

**Selected translations in mathematical statistics and probability.** 2396: ★Selected translations in mathematical statistics and probability. Vol. 6.

**Séminaire Bourbaki.** 2388: ★Mathématiques séminoses. Vol. 3: Séminaire Bourbaki, 3e et 4e années, 1950-1952. 2389: ★Mathématiques séminoses. Vol. 4: Séminaire Bourbaki, 5e et 6e années, 1952-1954. 5605: ★Séminaire Bourbaki: Vol. 1965/1966, Exposés 295-312.

**Séminaire de géométrie algébrique.** 7517: ★Schémas en groupes. Fasc. 1: Exposés 1 à 4. 7518: ★Schémas en groupes. Fasc. 2a: Exposés 5 et 6. 7519: ★Schémas en groupes. Fasc. 2b: Exposés 7a et 7b. 7520: ★Schémas en groupes. Fasc. 3: Exposés 8 à 11. 7521: ★Schémas en groupes. Fasc. 4: Exposés 12 à 14. 7522: ★Schémas en groupes. Fasc. 5a: Exposés 15 et 16. 7523: ★Schémas en groupes. Fasc. 5b: Exposés 17 et 18. 7524: ★Schémas en groupes. Fasc. 6: Exposés 19 à 22. 7525: ★Schémas en groupes. Fasc. 7: Exposés 23 à 26.

**Simon Stevin, The principal works of.** 1141: ★The principal works of Simon Stevin. Vols. IIA, IIB: Mathematics.

**Simposio internazionale sulle applicazioni dell'analisi alla fisica matematica.** 7058: ★Simposio internazionale sulle applicazioni dell'analisi alla fisica matematica.

**Solid state physics.** 5457: ★Lectures in theoretical physics. Volume VIII A: Statistical physics and solid state physics.

**Some recent advances in the basic sciences.** 7312: ★Belfer Graduate School of Science Annual Science Conference Proceedings: Some recent advances in the basic sciences. Vol. 1: 1962, 1963, 1964.

Space mathematics. 2397a: ★Space mathematics. Part 1. 2397b: ★Space mathematics. Part 2. 2397c: ★Space mathematics. Part 3.

Spectral theory. 2393: ★Problems of mathematical physics. No. I. Spectral theory and wave processes.

Spectral theory and statistical mechanics. 4084: ★Summer Institute on Spectral Theory and Statistical Mechanics, 1965.

Stability of motion. 2a: ★Analytic mechanics. Stability of motion. Celestial ballistics. Proceedings of the Second All-Union Conference on Theoretical and Applied Mechanics (January 29–February 5, 1964). Survey Reports. Vol. I.

Statistical physics. 5457: ★Lectures in theoretical physics. Volume VIII A: Statistical physics and solid state physics.

Structure of language and its mathematical aspects. 8898: ★Proceedings of Symposia in Applied Mathematics. Vol. XII: Structure of language and its mathematical aspects.

Studies in algebra. 4079: ★Algebra and mathematical logic: Studies in algebra.

Studies in analytical mechanics. 5341: ★Studies in analytical mechanics.

Studies in general algebra. 1132: ★Studies in general algebra (Seminar).

Studies in number theory. 122: ★Studies in number theory. No. I.

Studies in the mechanics of rock strata. 3985: ★Studies in the mechanics of rock strata.

Summa Brasil. Math., Vol. 5 (1962). 4080: ★Proceedings of the Third Brazilian Mathematical Colloquium.

Summer Institute on Spectral Theory and Statistical Mechanics. 4084: ★Summer Institute on Spectral Theory and Statistical Mechanics, 1965.

Summer School on Theoretical Physics (Dolina Chocholowska, 1963). Third. 7313: ★Summer School on Theoretical Physics held at Dolina Chocholowska, 1963.

Summer Seminar in Applied Mathematics, Ithaca, 1963. 2397a: ★Space mathematics. Part 1. 2397b: ★Space mathematics. Part 2. 2397c: ★Space mathematics. Part 3.

Symposium at Keszthely, 1964. 5404: ★Quantum theory of systems with many degrees of freedom. Symposium held at Keszthely, September, 1964.

Symposium on computer augmentation of human reasoning. 983: ★Symposium on computer augmentation of human reasoning.

Tables. 926: ★Tables of roots and weight-factors of generalized Laguerre polynomials. 1566: ★Ten place tables of the Jacobian elliptic functions. Part I. 1567: ★Ten place tables of the Jacobian elliptic functions. Part II. Theta functions and conversion factors. 2099: ★Symmetric function and allied tables. 2143: ★Five-figure table of the functions  $1/(1-\tan \theta)$  and  $1/(1-\cot \theta)$  for the range  $-90^\circ(1)90^\circ$ . 2298: ★Tables of Racah coefficients. 2948: ★Chebyshev series for Bessel functions of fractional order. 2949: ★An extended table of zeros of cross products of Bessel functions. 2950: ★Tables and formulae for the spherical functions  $P_{-1/2+n}(z)$ . 4566: ★Tables of the Legendre functions  $P_{-1/2+n}(z)$ . Part II. 5182: ★Formeln und Tabellen der mathematischen Statistik. 5183: ★Statistical tables. 6899: ★Tables for the distribution and density functions of  $t$ -distribution ("Student's" distribution). 8527: ★Tables of bivariate random normal deviates. 8530: ★Handbook of statistical tables. 8535: ★Biometrika tables for statisticians. Vol. I. 8604: ★Tafeln höherer Funktionen/Tables of higher functions. 8605: ★Tables of Lagrange coefficients for quadratic interpolations. 8606: ★Handbook of mathematical functions, with formulas, graphs, and mathematical tables. 8607: ★Handbook of mathematical functions, with formulas, graphs, and mathematical tables. 8608: ★Tables of Kelvin functions.

Tables of Kelvin functions. 8608: ★Tables of Kelvin functions.

Les tendances géométriques en algèbre et théorie des nombres. Clermont-Ferrand (2–9 Avril 1964). 2387: ★Les tendances géométriques en algèbre et théorie des nombres. Clermont-Ferrand (2–9 avril 1964).

Theoretical physics. 5457: ★Lectures in theoretical physics. Volume VIII A: Statistical physics and solid state physics. 7313: ★Summer School on Theoretical Physics held at Dolina Chocholowska, 1963.

Theoretical physics and elementary particle physics. Weak interaction of elementary particles. 2285: ★Theoretical physics and elementary particle physics. Weak interaction of elementary particles.

Theory of fields. 168: ★Certain problems in the theory of fields.

Theory of functions. 4: ★Modern problems of the theory of functions. 6030: ★Functional analysis and the theory of functions, No. I.

Theory of groups. 4339: ★Kourov notebook. Unsolved problems in the theory of groups.

Theory of mechanisms. 2b: ★Vibrations. Gyroscopics. Theory of mechanisms. Mechanics of fluids and gases. Proceedings of the Second All-Union Conference on Theoretical and Applied Mechanics (January 29–February 5, 1964). Survey Reports. Vol. II.

Tihonov, A. N. 5629: A list of published works of A. N. Tihonov.

Topics in optimization. 8828: ★Topics in optimization.

Topologie et géométrie différentielle. 2398: ★Cahiers de topologie et géométrie différentielle, Vol. VIII.

Topology seminar, Wisconsin, 1965. 1974: ★Topology seminar, Wisconsin, 1965.

Unione Matematica Italiana. 7058: ★Simposio internazionale sulle applicazioni dell'analisi alla fisica matematica.

Unsolved problems in the theory of groups. 4339: ★Kourov notebook. Unsolved problems in the theory of groups.

Vibrations. Gyroscopics. 2b: ★Vibrations. Gyroscopics. Theory of mechanisms. Mechanics of fluids and gases. Proceedings of the Second All-Union Conference on Theoretical and Applied Mechanics (January 29–February 5, 1964). Survey Reports. Vol. II.

Views on general systems theory. 8861: ★Views on general systems theory.

Wave processes. 2393: ★Problems of mathematical physics. No. I. Spectral theory and wave processes.

Weak interactions and higher symmetries. 2288: ★Weak interactions and higher symmetries.

Weak interactions of elementary particles. 2285: ★Theoretical physics and elementary particle physics. Weak interaction of elementary particles.

William of Sherwood's *Introduction to logic*. 4101: ★William of Sherwood's *Introduction to logic*.

Zur Geschichte der griechischen Mathematik. 5610: ★Zur Geschichte der griechischen Mathematik.

## SUBJECT CLASSIFICATION

This is a list of headings, with code numbers, under which articles were classified during the second half of 1967. The headings in capital letters are identical with those appearing in the monthly issues.

<p><b>00. GENERAL</b></p> <ul style="list-style-type: none"> <li>00 General mathematics</li> <li>04 Collections of papers</li> <li>20 Bibliographies</li> <li>30 Dictionaries and other reference works</li> <li>40 Reports of meetings</li> <li>50 Methodology and philosophy of mathematics</li> <li>Philosophy of science, general</li> </ul> <p><b>01. HISTORY AND BIOGRAPHY</b></p> <ul style="list-style-type: none"> <li>05 Ancient</li> <li>10 India, Far East, Maya, etc.</li> <li>15 Medieval and Renaissance</li> <li>20 17th century</li> <li>25 18th century</li> <li>30 19th century</li> <li>35 20th century</li> <li>40 Contemporary</li> <li>50 Biographies, obituaries, personalia</li> <li>60 Collected or selected works; reprintings or translations of classics</li> <li>70 Source books</li> </ul> <p><b>02. LOGIC AND FOUNDATIONS</b></p> <ul style="list-style-type: none"> <li>15 Formalizing verbal reasoning</li> <li>20 Syntax, semantics, deducibility</li> <li>30 Propositional calculus: two-valued</li> <li>32 Logical calculus: first-order, two-valued (functional calculus)</li> <li>40 Logistic, axiomatic set theory, paradoxes</li> <li>50 Many-valued logic, modal logic</li> <li>60 Recursive function theory, Turing computability</li> <li>70 Intuitionism</li> <li>75 Axioms for mathematical systems</li> <li>80 Metatheorems for mathematical systems</li> <li>90 Undecidability, unsolvability in mathematical systems</li> <li>95 Abstract automata theory (see also 94.00)</li> </ul> <p><b>04. SET THEORY</b></p> <ul style="list-style-type: none"> <li>15 Point sets</li> <li>20 Relations</li> <li>30 Transfinite numbers</li> <li>35 Problem of the continuum</li> <li>60 Combinatorial (partitions, etc.)</li> </ul> <p><b>05. COMBINATORIAL ANALYSIS</b></p> <ul style="list-style-type: none"> <li>10 Partitioning, subsets, etc.</li> <li>20 Matrices, magic squares, block designs, configurations</li> <li>30 Factorials, binomial coefficients, polynomials, power series</li> <li>40 Graphs</li> <li>50 Enumeration of graphs</li> </ul> <p><b>06. ORDER, LATTICES</b></p> <ul style="list-style-type: none"> <li>10 Total order</li> <li>20 Partial order</li> <li>30 Lattices</li> <li>40 Modular lattices, continuous geometries</li> <li>50 Distributive lattices</li> <li>60 Boolean algebras and rings</li> <li>70 Boolean algebras with operators</li> </ul> <p><b>08. GENERAL MATHEMATICAL SYSTEMS</b></p>	<p><b>10. THEORY OF NUMBERS</b></p> <ul style="list-style-type: none"> <li>005 Tables</li> <li>01 Elementary</li> <li>05 Power residues and reciprocity laws, primitive roots, indices; general binomial congruences</li> <li>10 Diophantine equations</li> <li>20 Diophantine approximation</li> <li>25 Continued fractions and other expansions</li> <li>28 Irrationality, transcendence</li> <li>30 Forms</li> <li>40 Geometry of numbers</li> <li>50 Exponential and power sums</li> <li>54 Turán's method</li> <li>55 Modular and automorphic functions, forms, and groups</li> <li>60 Multiplicative asymptotic theory</li> <li>62 Zeta-function and other Dirichlet series</li> <li>64 Character sums, asymptotic theory</li> <li>65 Distribution of primes</li> <li>70 Additive asymptotic theory</li> <li>75 Sequences of integers (additive bases, density theorems, etc.)</li> <li>80 Probabilistic number theory</li> <li>82 Distribution mod 1</li> <li>85 Arithmetic of hypercomplex numbers</li> <li>90 Algebraic number theory</li> <li>95 Class field theory</li> <li>96 Algebraic function fields</li> <li>97 p-adic fields</li> <li>98 Finite fields</li> </ul> <p><b>12. FIELDS AND POLYNOMIALS</b></p> <ul style="list-style-type: none"> <li>20 Finite fields</li> <li>30 Polynomials</li> <li>40 Galois theory</li> <li>50 Algebraic number fields</li> <li>60 Algebraic function fields</li> <li>70 Valuations, topological fields</li> <li>80 Differential and difference algebra</li> </ul> <p><b>14. ABSTRACT ALGEBRAIC GEOMETRY (for classical algebraic geometry, see 50.00)</b></p> <ul style="list-style-type: none"> <li>10 Theories of equivalence</li> <li>15 Transformations and correspondences</li> <li>20 Curves</li> <li>35 Algebraic properties of function fields</li> <li>40 Arithmetical properties of varieties</li> <li>45 Algebraic geometry over special fields or over rings; rationality questions</li> <li>50 Group varieties, abstract analytic groups</li> <li>52 Abstract derivations and differentials</li> <li>55 Sheaf-theoretic and homological methods</li> <li>60 Birational invariants, genera, etc.</li> </ul> <p><b>15. LINEAR ALGEBRA</b></p> <ul style="list-style-type: none"> <li>05 Vector spaces</li> <li>15 Linear inequalities</li> <li>20 Inequalities involving eigenvalues and eigenvectors</li> <li>25 Miscellaneous inequalities involving matrices</li> <li>30 Eigenvalues and eigenvectors</li> <li>33 Canonical forms, reductions</li> <li>36 Linear sets of linear transformations</li> <li>38 Matrix equations and identities</li> <li>39 Invariants</li> </ul>
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SUBJECT CLASSIFICATION

40 Multilinear algebra  
 48 Determinants  
 49 Permanents  
 50 Linear equations, matrix inversion

16. ASSOCIATIVE RINGS AND ALGEBRAS  
 10 Ideal theory  
 15 Commutative ideal theory  
 20 General commutative theory  
 24 Polynomials  
 26 Formal power series  
 28 Local rings  
 30 Division rings, simple rings and algebras  
 35 Structure of rings  
 40 Radical theory  
 45 Rings with chain condition  
 50 Linear representations of rings and algebras (including orders)  
 60 Modules  
 70 Galois theory  
 80 Ordered rings  
 90 Topological rings  
 95 Semi-rings, etc.

17. NON-ASSOCIATIVE RINGS AND ALGEBRAS

18. HOMOLOGICAL ALGEBRA

20. GROUP THEORY AND GENERALIZATIONS  
 10 Free groups, relations  
 14 General products of groups  
 16 Group extensions  
 20 Permutation groups  
 25 Finite groups (including finite abelian)  
 28 Burnside problem, conditions for finiteness  
 30 Abelian groups, general theory  
 40 Nilpotent, solvable,  $p$ -groups  
 45 Groups with local properties  
 50 Lattices of subgroups  
 55 Special subgroups  
 60 Crystallographic and discrete geometric groups  
 65 Modular groups, discrete subgroups of classical groups  
 70 Classical groups  
 75 Linear groups, general  
 80 Representations, characters, group algebras  
 85 Representations of symmetric groups  
 88 Automorphisms and endomorphisms, groups with operators  
 90 Ordered groups, ordered semigroups  
 92 Semigroups  
 94 Groupoids  
 96 Quasigroups  
 98 Loops

22. TOPOLOGICAL GROUPS AND LIE THEORY  
 10 Topological groups  
 12 Haar measures  
 15 Topological algebras  
 40 Transformation groups  
 50 Lie groups  
 55 Classical groups  
 60 Representations and analysis  
 70 Homogeneous spaces (topology, differential geometry)  
 80 Lie algebras  
 90 Abstract Lie theory  
 95 Infinite Lie groups  
 99 Lie theory of differential equations

26. FUNCTIONS OF REAL VARIABLES  
 10 Foundations: limits and generalizations [elementary topology of the line (or plane) if used for real variables]  
 20 Calculus: elementary, advanced, etc.

21 Elementary functions  
 30 Continuity and related questions (modulus of continuity [if not used in boundary behavior of analytic functions], discontinuities, etc.)  
 40 Differentiation: general theory  
 41 Non-differentiability (non-differentiable functions, points of non-differentiability), discontinuous derivatives  
 43 Generalized derivatives, derivatives of fractional order  
 47 Mean-value theorems  
 50 Monotonic functions, general  
 51 Functions of bounded variation; absolute continuity  
 52 Convexity; generalizations  
 53 Generalized monotonic functions  
 55 Several variables, implicit function theorems, Jacobians, transformations with several variables  
 56 Length, area, volume  
 60 Polynomials  
 70 Inequalities (of a general and miscellaneous character)  
 80 Real-analytic functions  
 81 Quasi-analytic classes of real functions, functions of class  $C^\infty$   
 85 Superposition of functions

28. MEASURE AND INTEGRATION  
 10 Measurable sets, general: Borel fields, non-measurable sets  
 12 Analytic and Suslin sets  
 13 Finitely additive set functions, measures; generalizations  
 15 Special and generalized measures, Carathéodory theory of measure  
 17 Transfinite diameter and capacity. Hausdorff measures and capacities  
 20 Measurable and non-measurable functions  
 25 Integration, general  
 26 Riemann integral, Lebesgue integral, Denjoy integral, etc.  
 30 Measure-preserving transformations  
 31 Invariant measures  
 32 Ergodic theorems  
 33 Dynamical systems  
 40 Length, area, volume  
 41 Other geometric measure theory

30. FUNCTIONS OF A COMPLEX VARIABLE  
 01 General questions, foundations  
 02 Monogenic properties of complex functions (also polygenic and areolar monogenic functions)  
 09 Inequalities in the complex domain  
 10 Polynomials  
 11 Zeros of polynomials  
 20 Power series  
 21 Behavior on the boundary of convergence. Overconvergence  
 24 Dirichlet series  
 25 Continued fractions  
 28 Analytic continuation  
 30 Sequences and series of analytic functions; uniform convergence, normal families, normal functions  
 35 Integration; integral representations; Cauchy integral, Poisson and Poisson-Stieltjes integrals  
 36 Moment problems; interpolation problems  
 40 Conformal mapping, general theory  
 41 Capacity, harmonic measure  
 42 Univalent and  $p$ -valent functions  
 43 Coefficient problems  
 45 Riemann surfaces, uniformization  
 46 Algebraic functions, Abelian integrals  
 47 Quasiconformal mapping  
 49 Automorphic functions and modular functions  
 50 Maximum principle. Schwarz's lemma, Phragmén-Lindelöf theorems  
 52 Extremal problems in complex domain  
 55 Entire functions  
 60 Meromorphic functions, general theory

SUBJECT CLASSIFICATION

41.

61 Distribution of values, Picard-type theorems, Nevanlinna theory, defect (deficiency) theory  
 62 Theory of cluster sets, prime ends, boundary behavior  
 65 Bounded functions, positive real part, Blaschke products  
 66 Bounded mean modulus, bounded characteristic  
 67  $H_p$  classes and other restrictions  
 70 Approximation by polynomials and rational functions, Faber polynomials  
 75 Boundary-value problems, Dirichlet problem  
 77 Special boundary-value problems; Riemann-Hilbert problem. Inverse boundary problems  
 79 Algebroidal functions  
 80 Topological function theory, functions topologically equivalent to analytic mappings  
 81 Generalized analytic mappings. Pseudo-analytic functions of Bers, Vekua, etc.  
 83 Functions of hypercomplex variables and generalized variables  
 85 Spaces of analytic functions  
 86 Kernel function and applications  
 87 Algebras of analytic functions

31. POTENTIAL THEORY  
 10 Harmonic functions in the plane  
 11 Harmonic functions, general  
 15 Subharmonic, superharmonic functions  
 20 Boundary-value problems, Dirichlet problem  
 21 Capacity and harmonic measure  
 22 Generalized capacity and potential  
 30 Biharmonic and polyharmonic functions and equations  
 35 Poisson's equation

32. SEVERAL COMPLEX VARIABLES  
 02 Foundations, general questions  
 10 Multiple power series, formal theory  
 15 Analytic and meromorphic curves  
 20 Holomorphic mappings, domains of holomorphy, analytic spaces (see also 57.00)  
 25 Automorphic functions  
 30 Approximation theorems

33. SPECIAL FUNCTIONS  
 04 Number-theoretic functions, special sequences  
 05 Tables of special functions  
 10 Exponential and trigonometric functions  
 15 Gamma and beta functions  
 17 Error function, probability integral  
 19 Elliptic functions and integrals  
 20 Hypergeometric functions  
 21  $E$ -functions  
 25 Cylindrical functions; Bessel functions  
 27 Spherical functions; Legendre polynomials and functions, spherical harmonics, ultraspherical polynomials  
 28 Lamé, Mathieu, spheroidal wave functions  
 30 Wave functions  
 32 Gegenbauer functions  
 40 Orthogonal polynomials, general (Chebyshev, Hermite, Jacobi, Laguerre polynomials and functions)

34. ORDINARY DIFFERENTIAL EQUATIONS  
 02 Solutions in closed form; integration by quadratures; reduction of differential equations  
 03 Operational calculus  
 04 General existence and uniqueness theorems, Picard approximations and generalizations  
 07 Continuous dependence of solution on parameter  
 10 Analytic theory  
 20 Linear equations and systems, general coefficients  
 21 Linear equations with constant coefficients  
 22 Linear equations with periodic and almost periodic coefficients  
 30 Boundary-value problems, linear equations  
 31 Sturm-Liouville theory  
 32 Eigenvalues, eigenfunctions

33 Eigenfunction expansions  
 34 Asymptotic properties of eigenfunctions  
 35 Boundary-value problems, non-linear  
 40 Qualitative theory of first- and second-order equations and systems; singular points and limit cycles  
 41 Periodic and almost periodic solutions  
 42 Non-linear oscillations  
 43 Stability of first- and second-order equations and systems  
 50 Qualitative theory of equations and systems of order greater than 2; asymptotic behavior of solutions  
 51 Stability; periodic and almost periodic solutions  
 53 Perturbations  
 54 Singular perturbations; small parameter with highest derivative  
 60 Stochastic differential equations  
 65 Dynamical systems, systems on manifolds  
 70 Equations and systems of infinite order  
 75 Difference-differential equations  
 76 Solution by finite differences  
 80 Differential equations in Banach and other space  
 85 Optimal control problems

35. PARTIAL DIFFERENTIAL EQUATIONS  
 05 General properties of solutions, Cauchy-Kowalewski theorems, etc.  
 10 First-order equations and systems  
 12 Classification of equations and systems  
 13 Exact equations and integrable systems. Pfaffian equations  
 15 Characteristics  
 20 Separation of variables, elementary properties of the equations of mathematical physics  
 30 Elliptic equations and systems of first and second order  
 31 Strongly elliptic systems  
 32 Quasi-linear elliptic equations and systems  
 33 Schrödinger equation, wave equation  
 34 Maxwell's equations, Helmholtz equation  
 35 Spectral analysis, eigenfunctions, operators  
 36 Elliptic systems and equations of higher order  
 37 Biharmonic equation  
 40 Hyperbolic equations and systems of second order  
 41 Quasi-linear hyperbolic systems and equations of second order  
 45 Hyperbolic equations and systems of higher order  
 50 Parabolic equations of second order  
 55 Equations of mixed type and second order  
 56 Mixed type, order higher than two  
 60 Non-linear equations and systems  
 62 Approximation of solutions  
 63 Solution by finite differences  
 65 Special equations: Navier-Stokes, etc.  
 70 Asymptotic properties  
 75 Infinite systems, equations of infinite order  
 80 Equations in Banach spaces and other spaces

39. FINITE DIFFERENCES AND FUNCTIONAL EQUATIONS  
 10 Finite differences, general  
 12 Solution of ordinary differential equations by finite differences  
 13 Solution of partial differential equations by finite differences  
 20 Difference equations  
 30 Functional equations

40. SEQUENCES, SERIES, SUMMABILITY  
 10 Series and sequences of numbers, general  
 11 Infinite products  
 12 Continued fractions  
 13 Convergence  
 15 Multiple series and sequences  
 20 Sequences and series of functions, convergence  
 30 Summability, general methods  
 31 Summability, matrix methods  
 32 Cesàro summability

SUBJECT CLASSIFICATION

33 Abel, Poisson summability  
 35 Summability of double series  
 40 Convergence and summability of integrals  
 42 Tauberian theorems

41. APPROXIMATIONS AND EXPANSIONS  
 10 Interpolation  
 15 Polynomial approximation  
 17 Approximation by rational functions  
 20 Approximate quadratures  
 40 Rate of convergence, degree of approximation, best approximation  
 41 Constructive theory of functions  
 45 Approximation by smoothing integrals  
 50 Asymptotic approximations  
 55 Other methods of approximation

42. FOURIER ANALYSIS  
 05 Trigonometric polynomials  
 06 Best approximation by trigonometric polynomials  
 08 Trigonometric interpolation  
 10 Fourier coefficients  
 11 Convergence of Fourier series  
 15 Orthogonal functions  
 16 Expansions in orthogonal functions  
 17 Completeness of sets of orthogonal functions  
 18 Completeness, closure, spectral synthesis  
 20 Summability of Fourier and generalized Fourier expansions  
 25 Fourier transform  
 26 Other Fourier-type transforms  
 27 Trigonometric moment problems  
 30 Almost periodic functions  
 35 Positive definite functions  
 40 Multiple Fourier series and integrals  
 50 Abstract harmonic analysis

44. INTEGRAL TRANSFORMS, OPERATIONAL CALCULUS  
 10 Laplace transform  
 25 Convolution  
 28 General transforms  
 30 Special transforms: Legendre, Hilbert, etc.  
 32 Multiple transforms  
 40 Operational calculus  
 42 Operational calculus in several variables  
 50 Fractional derivatives and integrals  
 60 Moment problems

45. INTEGRAL EQUATIONS  
 10 Linear integral equations, general  
 11 Fredholm equations  
 12 Eigenvalue problems  
 13 Volterra equations  
 15 Singular equations  
 20 Systems of linear equations  
 30 Non-linear integral equations  
 31 Singular non-linear equations  
 40 Integro-differential equations

46. FUNCTIONAL ANALYSIS  
 10 Topological linear spaces (including normed spaces and Hilbert spaces)  
 20 Partially ordered linear spaces  
 30 Special function spaces  
 40 Distributions  
 50 Single linear operators in linear or partially ordered spaces  
 60 Groups or semigroups of linear operators, representations of topological groups  
 65 Rings of operators, group algebras, abstract topological algebras, and their representations  
 70 Banach algebras of analytic functions  
 80 Differential and integral operators  
 90 Applications of functional analysis

49. CALCULUS OF VARIATIONS

50. GEOMETRY  
 05 Foundations  
 10 Euclidean  
 11 Triangles, tetrahedra  
 12 Circles, spheres  
 14 Constructions  
 15 Descriptive geometry  
 17 Analytic geometry  
 20 Affine geometry, general  
 25 Transformations  
 30 Projective geometry, general  
 35 Transformations  
 38 Second-order loci  
 40 Non-Euclidean geometry (i.e., hyperbolic or elliptic)  
 45 Minkowski geometry  
 48 Special geometries  
 50 Classical algebraic geometry  
 51 Foundations  
 52 Transformations  
 55 Curves  
 56 Surfaces  
 57 Abelian varieties, genera, integrals  
 60 Finite geometries  
 70 Projective planes  
 80 Configurations  
 90 Regular figures, divisions of space  
 95 Paradoxical decompositions

52. CONVEX SETS AND GEOMETRIC INEQUALITIES  
 10 Convex polyhedra  
 25 Convex curves  
 30 Convex regions  
 34 Helly-type theorems  
 40 Extremum problems and geometric inequalities  
 45 Packing and covering  
 50 Distance geometries

53. DIFFERENTIAL GEOMETRY  
 01 Curves and surfaces in Euclidean spaces  
 04 Minimal surfaces  
 10 Affine differential geometry  
 20 Projective differential geometry  
 25 Conformal differential geometry  
 30 Non-Euclidean differential geometry  
 32 Other special differential geometries  
 35 Vector and tensor analysis  
 38 Spinor analysis  
 40 Differentiable manifolds (general theory), e.g., definitions, jets, tangent bundles  
 42 Differential invariants (local theory), geometric objects  
 45 Differential calculus (global theory); forms, currents, integration, tensor fields, etc.  
 50 Connections (general theory), including  $G$ -structures  
 55 Affine connections  
 60 Projective connections  
 65 Conformal connections  
 70 Local Riemannian geometry  
 72 Riemannian manifolds  
 75 Global surface theory (convex surfaces)  
 78 Lorentz metrics and generalizations  
 80 Kählerian connections and generalizations  
 85 Finsler spaces and generalizations (areal metrics)  
 90 Integral geometry  
 99 Other generalizations ( $G$ -spaces of Busemann, etc.)

54. GENERAL TOPOLOGY  
 10 Axiomatics; generalizations of topological spaces  
 20 General topological spaces  
 21 Convergence notions

SUBJECT CLASSIFICATION

76.

- 22 Compactness and generalizations
- 23 Compactifications, other extensions
- 24 Proximity spaces
- 25 Uniform spaces
- 26 Metric spaces, metrizability
- 27 Dimension theory
- 28 Mappings
- 29 Many-valued mappings
- 30 Continua
- 35 Topological semigroups, lattices, etc.
- 40 Topology of  $E_2$ , 2-manifolds
- 50 Topology of  $E_n$ ,  $n$ -manifolds ( $n > 2$ )
- 60 Transformation groups
- 70 Topological dynamics
- 80 Fixed-point theorems, coincidence theorems, etc.

55. ALGEBRAIC TOPOLOGY

- 10 Graphs, map-coloring
- 20 Knots, links
- 30 Homology and cohomology theory
- 32 Sheaves
- 34 Cohomology (and homology) operations, Steenrod algebra
- 36 Periodic transformations, fixed points, coincidences (Smith theory)
- 38 Dimension theory
- 40 Homotopy theory, general
- 42 Algebra of mappings (including cohomotopy groups)
- 45 Computation of homotopy groups
- 50 Fiber spaces
- 52 Spectral sequences
- 60 Manifolds
- 62 Classification
- 64 Mappings
- 66 Generalized manifolds, local homology
- 68 Homotopy manifolds
- 70 Imbedding, immersion

57. TOPOLOGY AND GEOMETRY OF DIFFERENTIABLE MANIFOLDS

- 10 Differentiable structures, cobordism
- 20 Differentiable mappings, imbeddings, immersions, diffeomorphisms
- 30 Fiber bundles, tangent bundles
- 32 Characteristic classes
- 34 Topology of vector and tensor fields
- 36 Foliations
- 40 Topology of Lie groups
- 45 Topology of homogeneous spaces
- 50 Analysis on differentiable manifolds
- 60 Complex manifolds (also in several complex variables)
- 70 Infinite Lie groups, deformations

60. PROBABILITY

- 05 Foundations
- 10 Combinatorial probability theory
- 15 Geometric probability theory
- 20 Distributions
- 30 Limit theorems
- 40 Stochastic processes, general theory
- 45 Markov processes
- 48 Branching processes
- 50 Stationary processes
- 55 Random walks, Brownian motion
- 60 Queueing theory, telephone traffic, storage
- 62 Renewal theory
- 65 Other special processes
- 70 Random noise
- 90 Other applications

62. STATISTICS

- 05 Elementary descriptive statistics
- 10 Distributions of statistical functions
- 20 Estimation theory: parametric case
- 25 Testing of hypotheses: parametric case
- 30 Multivariate analysis, regression analysis
- 35 Order statistics
- 40 Non-parametric methods
- 50 Analysis of experiments
- 55 Design of experiments
- 60 Decision theory
- 65 Multistage decision procedures, sequential analysis
- 70 Statistical engineering, quality control
- 75 Life testing
- 80 Sampling surveys
- 85 Statistical analysis of stochastic processes, time series analysis
- 90 Applications

65. NUMERICAL METHODS

- 05 General mathematical methods, iteration, tables
- 15 Monte Carlo methods
- 20 Interpolation, smoothing, least squares, curve fitting, approximation of functions
- 25 Computation of special functions, series, integrals
- 30 Mathematical programming
- 35 Linear equations, determinants, matrices
- 40 Eigenvalues, eigenvectors, Rayleigh-Ritz method
- 50 Solution of algebraic and transcendental equations and systems
- 55 Numerical differentiation and integration, mechanical quadrature
- 60 Ordinary differential equations
- 65 Partial differential equations
- 70 Difference and functional equations
- 75 Integral and integro-differential equations
- 80 Error analysis
- 85 Graphical methods, nomography
- 90 Harmonic analysis and synthesis

68. COMPUTING MACHINES

69. GENERAL APPLIED MATHEMATICS

70. MECHANICS OF PARTICLES AND SYSTEMS

- 10 Foundations
- 20 Statics
- 30 Kinematics, mechanisms, linkages
- 40 Dynamics
- 50 Oscillations, stability
- 55 Non-linear oscillation
- 60 Exterior ballistics
- 70 Variable mass, rockets

73. ELASTICITY, PLASTICITY

- 05 Foundations of mechanics of deformable solids
- 06 Elasticity: general theorems
- 07 Finite deformation
- 10 Plane stress and strain
- 15 Three-dimensional problems
- 25 Beams and rods
- 30 Plates
- 32 Shells and membranes
- 35 Anisotropic bodies
- 37 Dislocation theory
- 45 Vibrations, structural dynamics
- 47 Aeroelasticity
- 50 Stability, buckling, failure
- 55 Wave propagation, impact
- 65 Visco-elasticity
- 70 Plasticity, creep
- 80 Soil mechanics
- 90 Thermo-mechanics

78.

80.

81.

82.

**SUBJECT CLASSIFICATION**

<p>76. <b>FLUID MECHANICS, ACOUSTICS</b></p> <ul style="list-style-type: none"> <li>05 Foundations</li> <li>10 Incompressible fluids: general theory</li> <li>15 Incompressible fluids with special boundaries</li> <li>17 Airfoil theory</li> <li>20 Free surface flows, water waves, jets, wakes</li> <li>25 Viscous fluids</li> <li>30 Boundary layer theory</li> <li>35 Stability of flow</li> <li>37 Convection</li> <li>40 Turbulence</li> <li>45 Rarefied gas flow</li> <li>50 Compressible fluids: general theory</li> <li>55 Compressible fluids: subsonic flow</li> <li>60 Compressible fluids: transonic flow</li> <li>65 Compressible fluids: supersonic and hypersonic flow</li> <li>70 Shock waves</li> <li>75 Aero- and hydrodynamic sound</li> <li>80 Acoustics</li> <li>85 Non-Newtonian fluids</li> <li>90 Magnetohydro- and aerodynamics, ionized gas flow (see also 78.30 ; 82.25 ; 85.50)</li> <li>92 Quantum hydrodynamics</li> <li>93 Relativistic hydrodynamics</li> <li>95 Diffusion, filtration</li> </ul> <p>78. <b>OPTICS, ELECTROMAGNETIC THEORY, CIRCUITS</b></p> <ul style="list-style-type: none"> <li>05 Geometric optics</li> <li>10 Physical optics</li> <li>20 Electron optics</li> <li>30 Space charge waves</li> <li>40 Electromagnetic theory</li> <li>45 Electro- and magnetostatics</li> <li>50 Waves and radiation</li> <li>60 Diffraction, scattering</li> <li>70 Antennas, wave-guides</li> <li>90 Technical applications</li> </ul> <p>80. <b>CLASSICAL THERMODYNAMICS, HEAT TRANSFER</b></p> <ul style="list-style-type: none"> <li>10 Classical thermodynamics</li> <li>20 Heat and mass transfer</li> <li>30 Combustion, interior ballistics</li> <li>40 Chemical kinetics</li> </ul> <p>81. <b>QUANTUM MECHANICS</b></p> <ul style="list-style-type: none"> <li>10 General theory</li> <li>15 Scattering theory</li> <li>20 Mathematical field theory</li> <li>22 Dispersion relations</li> <li>24 Weak interactions</li> <li>26 Elementary particles</li> <li>28 Nuclear physics</li> <li>30 Atomic physics</li> <li>38 Molecular physics</li> <li>50 Quantum mechanics of many-body systems</li> <li>60 Superconductivity and superfluidity</li> <li>70 Quantum statistical mechanics</li> </ul> <p>82. <b>STATISTICAL PHYSICS, STRUCTURE OF MATTER</b></p> <ul style="list-style-type: none"> <li>05 General statistical mechanics</li> <li>10 Quantum statistical mechanics</li> <li>15 Statistical thermodynamics</li> <li>17 Irreversible thermodynamics</li> <li>20 Kinetic theory of gases</li> <li>25 Plasma (see also 76.90)</li> <li>30 Liquids</li> <li>40 Solids</li> <li>45 Crystals</li> <li>50 Metals</li> </ul>	<p>60 Transport processes</p> <p>65 Nuclear reactor theory</p> <p>83. <b>RELATIVITY</b></p> <ul style="list-style-type: none"> <li>10 Special relativity</li> <li>20 General relativity</li> <li>30 Unified field theories</li> <li>40 Other relativistic theories</li> </ul> <p>85. <b>ASTRONOMY</b></p> <ul style="list-style-type: none"> <li>10 Celestial mechanics</li> <li>15 Galactic and stellar dynamics</li> <li>20 3- and n-body problems</li> <li>27 Astronautics</li> <li>30 Stellar structure</li> <li>40 Stellar atmospheres, radiative transfer</li> <li>50 Hydrodynamic and hydromagnetic problems</li> <li>60 Statistical astronomy</li> <li>70 Cosmology</li> <li>80 Special problems</li> <li>90 Radio astronomy</li> </ul> <p>86. <b>GEOPHYSICS</b></p> <ul style="list-style-type: none"> <li>10 Hydrology, hydrography, oceanography</li> <li>20 Meteorology</li> <li>30 Seismology</li> <li>40 Potentials, prospecting</li> <li>50 Geo-electricity and magnetism</li> <li>60 Geodesy, mapping problems</li> <li>70 Atmospheric physics</li> </ul> <p>90. <b>ECONOMICS, OPERATIONS RESEARCH, GAMES</b></p> <ul style="list-style-type: none"> <li>05 Decisions, utility</li> <li>10 Economic models</li> <li>15 Economic time-series analysis</li> <li>17 Miscellaneous applications to economics</li> <li>30 Management science, operations research</li> <li>35 Highway traffic</li> <li>40 Actuarial theory</li> <li>50 Linear programming</li> <li>52 Transportation problems</li> <li>54 Flows in networks</li> <li>56 Integer programming</li> <li>58 Non-linear programming</li> <li>60 Logistics, inventory, storage</li> <li>70 Games</li> </ul> <p>92. <b>BIOLOGY AND BEHAVIORAL SCIENCES</b></p> <ul style="list-style-type: none"> <li>10 Biology</li> <li>20 Genetics</li> <li>30 Population dynamics, epidemiology</li> <li>40 Sociology</li> <li>50 Psychology</li> <li>55 Nervous networks</li> </ul> <p>93. <b>CONTROL</b></p> <ul style="list-style-type: none"> <li>20 Stability, qualitative behavior</li> <li>40 Optimal control—deterministic</li> <li>50 Iterative techniques (dynamic programming)</li> <li>60 Stochastic control</li> <li>70 Adaptive control</li> </ul> <p>94. <b>INFORMATION AND COMMUNICATION, SYSTEMS</b></p> <ul style="list-style-type: none"> <li>10 Statistical communication theory—general</li> <li>12 Nonlinear devices, modulation</li> <li>15 Optimum filtering, prediction</li> </ul>
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SUBJECT CLASSIFICATION

15 Detection, parameter estimation	52 Characterization of channels, measures of entropy
20 Pattern recognition	55 Algebraic coding theory
30 Circuit theory—general	60 Logical design, switching theory (see also 02.30)
35 Applications of graph theory, combinatorial methods (see also 90.54, 05.40)	65 Finite state automata
50 Information theory—foundations, coding theorems	70 Turing machines, other infinite state automata
	75 Linguistics, formal languages

## ABBREVIATIONS OF NAMES OF JOURNALS

This list gives the form of references used in MATHEMATICAL REVIEWS and the complete title; the place of publication and other pertinent information are given in parentheses when desirable for clarity.

*Abh. Akad. Wiss. Göttingen Math.-Phys. Kl.* Abhandlungen der Akademie der Wissenschaften in Göttingen. Mathematisch-Physikalische Klasse. (Göttingen)

*Abh. Deutsch. Akad. Wiss. Berlin Kl. Math. Phys. Tech.* Abhandlungen der Deutschen Akademie der Wissenschaften zu Berlin. Klasse für Mathematik, Physik und Technik. (Berlin)

*Abh. Dokumentationszentrums Technik Wirtschaft.* Abhandlungen des Dokumentationszentrums der Technik und Wirtschaft. (Vienna)

*Abh. Math. Sem. Univ. Hamburg.* Abhandlungen aus dem Mathematischen Seminar der Universität Hamburg. (Hamburg)

*Abh. Sächs. Akad. Wiss. Leipzig Math.-Natur. Kl.* Abhandlungen der Sächsischen Akademie der Wissenschaften zu Leipzig. Mathematisch-Naturwissenschaftliche Klasse. (Leipzig)

*Abstracta Bulgarian Sci. Lit. Math. Phys. Astronom. Geophys. Geodes.* Bulgarian Academy of Sciences. Centre of Scientific Information and Documentation. Abstracts of Bulgarian Scientific Literature. Mathematics, Physics, Astronomy, Geophysics, Geodesy. (Sofia)

*Acad. R. P. Române Baza Cerc. Ști. Timișoara Stud. Cerc. Ști. Tehn.* Academia Republicii Populare Române. Baza de Cercetări Științifice Timișoara. Studii și Cercetări Științe Tehnice. (Timișoara)

*Acad. R. P. Române Stud. Cerc. Mec. Apl.* Academia Republicii Populare Române. Institutul de Mecanică Aplicată "Traian Vuia". Studii și Cercetări de Mecanică Aplicată. (Bucharest) (Continued as: *Stud. Cerc. Mec. Apl.*)

*Acad. Roy. Belg. Bull. Cl. Sci.* Académie Royale de Belgique. Bulletin de la Classe des Sciences. Koninklijke Belgische Academie. Mededelingen van de Klasse der Wetenschappen. (Brussels)

*Acad. Roy. Belg. Cl. Sci. Mém. Coll. in-8°.* Académie Royale de Belgique. Classe des Sciences. Mémoires. Collection in-8°. Koninklijke Belgische Academie. Klasse der Wetenschappen. Verhandelingen. Verzameling in-8°. (Brussels)

*Acad. Serbe Sci. Arts Glas.* Académie Serbe des Sciences et des Arts. Glas. Classe des Sciences Mathématiques et Naturelles. Nouvelle Série. (Belgrade) (Formerly listed as: *Acad. Serbe Sci. Arts Glas Cl. Sci. Math. Natur.*)

*Acad. Serbe Sci. Arts Glas Cl. Sci. Math. Natur.* Académie Serbe des Sciences et des Arts. Glas. Classe des Sciences Mathématiques et Naturelles. Nouvelle Série. (Belgrade) See *Acad. Serbe Sci. Arts Glas*.

*Accad. Naz. Sci. Lett. Arti Modena Atti Mem.* Accademia Nazionale di Scienze Lettere e Arti. Modena. Atti e Memorie. (Modena)

*Acta Acad. Åbo Ser. B.* Acta Academiae Åboensis, Ser. B. Mathematica et Physica. Matematik-Naturvetenskaper-Teknik. (Åbo=Turku)

*Acta Acust. Sinica.* Acta Acustica Sinica. (Peking)

*Acta Arith. Polska Akademia Nauk. Instytut Matematyczny.* Acta Arithmetica. (Warsaw)

*Acta Astronom. Sinica.* Acta Astronomica Sinica. (Peking)

*Acta Cryst.* Acta Crystallographica. (Copenhagen)

*Acta Fac. Rerum Natur. Univ. Comenian. Acta Facultatis Rerum Naturalium Universitatis Comenianae.* (Bratislava)

*Acta Math.* Acta Mathematica. (Uppsala)

*Acta Math. Acad. Sci. Hungar.* Acta Mathematica Academiae Scientiarum Hungaricae. (Budapest)

*Acta Math. Sinica.* Acta Mathematica Sinica. (Peking) (Translated as: *Chinese Math.—Acta*)

*Acta Mech.* Acta Mechanica. (Vienna)

*Acta Mech. Sinica.* Acta Mechanica Sinica. (Peking) See *Acta Mech. Sinica (Peking)*.

*Acta Mech. Sinica (New York).* Acta Mechanica Sinica. (New York) (Translation of *Acta Mech. Sinica (Peking)*)

*Acta Mech. Sinica (Peking).* Acta Mechanica Sinica. (Peking) (Formerly listed as: *Acta Mech. Sinica*) (Translated as: *Acta Mech. Sinica (New York)*)

*Acta Philos. Fenn.* Acta Philosophica Fennica. (Helsinki)

*Acta Phys. Acad. Sci. Hungar.* Acta Physica Academiae Scientiarum Hungaricae. (Budapest)

*Acta Phys. Austriaca.* Acta Physica Austriaca. (Vienna)

*Acta Phys. Polon.* Polska Akademia Nauk. Instytut Fizyki. Acta Physica Polonica. (Warsaw)

*Acta Phys. Sinica.* Acta Physica Sinica. (Peking) (Translated as: *Chinese J. Phys. (Peking)*)

*Acta Polytech. Scand. Math. and Comput. Mach. Ser.* Acta Polytechnica Scandinavica. Mathematics and Computing Machinery Series. (Stockholm)

*Acta Sci. Math. (Szeged).* Acta Universitatis Szegediensis. Acta Scientiarum Mathematicarum. (Szeged)

*Acta Sci. Natur. Univ. Pekinensis.* Acta Scientiarum Naturalium Universitatis Pekinensis. (Peking)

*Acta Tech. Acad. Sci. Hungar.* Acta Technica Academiae Scientiarum Hungaricae. (Budapest)

*Acta Univ. Lund. Sect. II.* Acta Universitatis Lundensis. Sectio II. Medica, Mathematica, Scientiae rerum naturalium. (Lund)

*Actualités Sci. Indust.* Actualités Scientifiques et Industrielles. (Paris)

*Acustica.* Acustica. (Zürich)

*Advances in Math.* Advances in Mathematics. (New York)

*Advances in Phys.* Advances in Physics. A Quarterly Supplement of the Philosophical Magazine. (London)

*Aero. Quart.* The Aeronautical Quarterly. (London)

*AIAA J.* AIAA Journal. (Easton, Pa.)

*Akad. Nauk Armjan. SSR Dokl.* Akademija Nauk Armjanskoi SSR. Doklady. (Erevan)

*Akad. Nauk Azerbaidžan. SSR Dokl.* Akademija Nauk Azerbaidžanskoi SSR. Doklady. (Baku)

*Akad. Nauk Azerbaidžan. SSR Trudy Inst. Mat. Meh.* Akademija Nauk Azerbaidžanskoi SSR. Trudy Instituta Matematiki i Mekhaniki. (Baku)

*Akad. Nauk Gruzin. SSR Trudy Tbiliss. Mat. Inst. Razmadze.* Akademija Nauk Gruzinaskoi SSR. Trudy Tbilisskogo Matematicheskogo Instituta im. A. M. Razmadze. (Tbilisi) See *Sakharov. SSR Meon.*

ABBREVIATIONS OF NAMES OF JOURNALS

*Akad. Nauk Kazah. SSR Trudy Astrofiz. Inst. Akademija Nauk Kazahskoi SSR. Trudy Astrofizicheskogo Instituta. (Alma-Ata)*

*Akad. Nauk Kazah. SSR Trudy Sekt. Mat. Mekh. Akademija Nauk Kazahskoi SSR. Trudy Sektora Matematiki i Mekhaniki. (Alma-Ata)*

*Akad. Nauk SSSR Izv. Sibirsk. Otd. Akademija Nauk SSSR. Izvestija Sibirskogo Otdelenija Akademii Nauk SSSR. (Novosibirsk)* (Continued as: *Izv. Sibirsk. Otd. Akad. Nauk SSSR*)

*Akad. Nauk SSSR Sibirsk. Otdel. Inst. Automat. Elektrometr. Trudy. Akademija Nauk SSSR. Sibirskoe Otdelenie. Institut Avtomatiki i Elektrometrii. Trudy. (Novosibirsk)*

*Akad. Nauk SSSR Trudy Jakutsk. Filial. Ser. Fiz. Akademija Nauk SSSR. Trudy Jakutskogo Filiala. Serija fizicheskaja. (Moscow)*

*Akad. Nauk Uzbek. SSR Trudy Inst. Mat. Akademija Nauk Uzbekskoj SSR. Trudy Instituta Matematiki im. V. I. Romanovskogo. (Tashkent)*

*Akad. Wiss. Lit. Mainz Abh. Math.-Natur. Kl. Akademie der Wissenschaften und der Literatur in Mainz. Abhandlungen der Mathematisch-Naturwissenschaftlichen Klasse. (Wiesbaden)*

*Akust. Beihefte. Akustische Beihefte. (Stuttgart)*

*Akust. Z. Akademija Nauk SSSR. Akusticheskij Zurnal. (Moscow)* (Translated as: *Soviet Physics Acoust.*)

*Algebra i Logika Sem. Akademija Nauk SSSR. Sibirskoe Otdelenie. Institut Matematiki. Algebra i Logika. Seminar. (Novosibirsk)*

*Algorytmy. Algorytmy. Prace Instytutu Matematycznych Polskiej Akademii Nauk. (Warsaw)*

*Allgemein. Statist. Arch. Allgemeines statistisches Archiv. Organ der Deutschen Statistischen Gesellschaft. (Munich)*

*Amer. J. Math. American Journal of Mathematics. (Baltimore, Md.)*

*Amer. J. Phys. American Journal of Physics. (New York)*

*Amer. Math. Monthly. The American Mathematical Monthly. (Buffalo, N.Y.)*

*Amer. Math. Soc. Transl. American Mathematical Society Translations. (Providence, R.I.)*

*AMR. Applied Mechanics Reviews. (New York)*

*An. Acad. Brasil. Ci. Anais da Academia Brasileira de Ciencias. (Rio de Janeiro)*

*An. Inst. Mat. Univ. Nac. Autónoma México. Anales del Instituto de Matemáticas. Universidad Nacional Autónoma de México. (Mexico City)*

*An. Soc. Ci. Argentina. Anales de la Sociedad Científica Argentina. (Buenos Aires)*

*An. Sti. Univ. "Al. I. Cuza" Iași Secț. I a Mat. Analele Științifice ale Universității "Al. I. Cuza" din Iași. (Seria Nouă). Secțiunea I. a. Matematică. (Iași)*

*An. Univ. București Ser. Acta Logica. Analele Universității București. Seria Acta Logica. (Bucharest)*

*An. Univ. București Ser. Ști. Natur. Fiz. Analele Universității București. Seria Științele Naturii. Fizică. (Bucharest)*

*An. Univ. București Ser. Ști. Natur. Mat.-Mec. Analele Universității București. Seria Științele Naturii. Matematică-Mecanică. (Bucharest)*

*An. Univ. Timișoara Ser. Ști. Mat.-Fiz. Analele Universității din Timișoara. Seria Științe Matematice-Fizice. (Timișoara)*

*Ann. Acad. Sci. Fenn. Ser. A I. Suomalaisen Tiedeakatemian Toimituksia. Sarja A. Annales Academiae Scientiarum Fenniae. Series A. I. Mathematica. (Helsinki)*

*Ann. Acad. Sci. Fenn. Ser. A VI. Suomalaisen Tiedeakatemian Toimituksia. Sarja A. Annales Academiae Scientiarum Fenniae. Series A. VI. Physica. (Helsinki)*

*Ann. Assoc. Internat. Calcul Analog. Annales de l'Association Internationale pour le Calcul Analogique. Proceedings of the International Association for Analog Computation. (Brussels)*

*Ann. Astrophys. Annales d'Astrophysique. (Paris)*

*Ann. Fac. Sci. Univ. Toulouse. Annales de la Faculté des Sciences de l'Université de Toulouse pour les Sciences Mathématiques et les Sciences Physiques. (Toulouse)*

*Ann. Geofis. Annali di Geofisica. Rivista dell'Istituto Nazionale di Geofisica. (Rome)*

*Ann. Inst. Fourier (Grenoble). Université de Grenoble. Annales de l'Institut Fourier. (Grenoble)*

*Ann. Inst. H. Poincaré Sect. A. Annales de l'Institut Henri Poincaré. Section A: Physique théorique. (Paris)*

*Ann. Inst. H. Poincaré Sect. B. Annales de l'Institut Henri Poincaré. Section B: Calcul des probabilités et statistique. (Paris)*

*Ann. Inst. Statist. Math. Annals of the Institute of Statistical Mathematics. (Tokyo)*

*Ann. Japan Assoc. Philos. Sci. Annals of the Japan Association for Philosophy of Science. (Tokyo)*

*Ann. Mat. Pura Appl. Annali di Matematica Pura ed Applicata. (Bologna)*

*Ann. Math. Statist. The Annals of Mathematical Statistics. (Baltimore, Md.)*

*Ann. New York Acad. Sci. Annals of the New York Academy of Sciences. (New York)*

*Ann. of Math. Annals of Mathematics. (Princeton, N.J.)*

*Ann. of Sci. Annals of Science. (London)*

*Ann. Physics. Annals of Physics. (New York)*

*Ann. Physik. Annalen der Physik. (Leipzig)*

*Ann. Physique. Annales de Physique. (Paris)*

*Ann. Polon. Math. Polska Akademia Nauk. Annales Polonici Mathematici. (Warsaw)*

*Ann. Ponts Chaussées. Annales de Ponts et Chaussées. (Paris)*

*Ann. Radiodéc. Annales de Radioélectricité. (Paris)*

*Ann. Sci. École Norm. Sup. Annales Scientifiques de l'École Normale Supérieure. (Paris)*

*Ann. Scuola Norm. Sup. Pisa. Annali della Scuola Normale Superiore de Pisa. Scienze Fisiche e Matematiche. (Pisa)*

*Ann. Soc. Sci. Bruxelles Sér. I. Annales de la Société Scientifique de Bruxelles. Série I. Sciences Mathématiques, Astronomiques et Physiques. (Brussels)*

*Ann. Télécommun. Annales des Télécommunications. (Paris)*

*Ann. Univ. Ferrara Ser. VII. Annali dell'Università di Ferrara. (Nuovo Serie). Sezione VII. Scienze Matematiche. (Ferrara)*

*Ann. Univ. Lyon Sect. B. Annales de l'Université de Lyon. Section B. Sciences Physiques et Chimiques. (Lyon)*

*Ann. Univ. Mariae Curie-Skłodowska Sect. A. Annales Universitatis Mariae Curie-Skłodowska. Section A. Mathematics. (Lublin)*

*Ann. Univ. Mariae Curie-Skłodowska Sect. AA. Annales Universitatis Mariae Curie-Skłodowska. Section AA. Physics and Chemistry. (Lublin)*

*Ann. Univ. Sarav. Math.-Natur. Fak. Annales Universitatis Saraviensis. Mathematisch-Naturwissenschaftliche Fakultät. (Berlin)*

*Ann. Univ. Sci. Budapest. Eötvös Sect. Math. Annales Universitatis Scientiarum Budapestinensis de Rolando Eötvös Nominatae. Sectio Mathematica. (Budapest)*

*Ann. Univ. Turku. Ser. A I. Annales Universitatis Turkuensis. Series A. I. Astronomica-Chemica-Physica-Mathematica. (Turku)*

*Annuaire Univ. Sofia Fac. Math. Godišnik na Sofijskija Universitet Matematički Fakultet. Annuaire de l'Université de Sofia. Faculté de Mathématiques. (Sofia)*

*Annuaire Univ. Sofia Fac. Phys. Godišnik na Sofijskija Universitet Fizički Fakultet. Annuaire de l'Université de Sofia. Faculté de Physique. (Sofia)*

*Annual Rep. Coll. Lib. Arts Univ. Iwate. Annual Report of the College of Liberal Arts, University of Iwate. (Kakuzanwaki)*

ABBREVIATIONS OF NAMES OF JOURNALS

*Anuário Obs. São Paulo.* Universidade de São Paulo. Instituto Astronómico e Geofísico. Anuário do Observatório de São Paulo. (São Paulo)

*Apl. Mat. Československá Akademie Věd. Aplikace Matematiky.* (Prague)

*Appl. Mech. Rev.* Applied Mechanics Reviews. (New York) (Sometimes abbreviated as *AMR* in the text of *Math. Reviews*)

*Appl. Sci. Res.* Applied Scientific Research. (The Hague)

*Appl. Statist.* Applied Statistics. A Journal of the Royal Statistical Society. (London)

*Årbok Univ. Bergen Mat.-Natur. Ser.* Årbok for Universitetet i Bergen. Mat.-Naturv. Serie. (Bergen)

*Arch. Automat. i Telemech.* Instytut Automatyki Polskiej Akademii Nauk. Archiwum Automatyki i Telemekaniki. (Warsaw)

*Arch. Elektrotech.* Archiv für Elektrotechnik. (Berlin-Göttingen-Heidelberg)

*Arch. History Exact Sci.* Archive for History of Exact Sciences. (Berlin)

*Arch. Math. (Basel).* Archiv der Mathematik. Archives of Mathematics. Archives Mathématiques. (Basel-Stuttgart)

*Arch. Math. (Brno).* Spisy Přírodovědecké Fakulty University J. E. Purkyně v Brně. Archivum Mathematicum. (Brno)

*Arch. Math. Logik Grundlagenforsch.* Archiv für mathematische Logik und Grundlagenforschung. (Stuttgart)

*Arch. Mech. Stos.* Polska Akademia Nauk. Instytut Podstawowych Problemów Techniki. Archiwum Mechaniki Stosowanej. (Warsaw)

*Arch. Rational Mech. Anal.* Archive for Rational Mechanics and Analysis. (Berlin)

*Arch. Sci. Soc. Phys. Histoire Natur. Genève.* Archives des Sciences. Société de Physique et d'Histoire Naturelle de Genève. (Geneva)

*Archimede.* Archimede. Rivista per gli Insegnanti e i Cultori di Matematiche Pure e Applicate. (Florence)

*Ark. Astronom.* Arkiv för Astronomi. (Stockholm)

*Ark. Fys.* Arkiv för Fysik. (Stockholm)

*Ark. Mat.* Arkiv för Matematik. (Stockholm)

*Arkhimedes.* Arkhimedes. Suomen Fysikaaloseura—Finlands Fysikförening r.y. Suomen Matemaattinen Yhdistys—Finlands Matematičeska Förening r.y. (Helsinki)

*Arquivo Inst. Gulbenkian Ci. A Estud. Mat. Fis.-Mat.* Arquivo do Instituto Gulbenkian de Ciencia. A. Estudos Matemáticos e Físico-Matemáticos. (Lisbon)

*Assoc. Roy. Actuair. Belges Bull.* Association Royale des Actuaires Belges. Bulletin. (Brussels)

*Astrofizika.* Akademija Nauk Armjanakoi SSR. Astrofizika. (Erevan) (Translated as: *Astrophysics*)

*Astronaut. Acta.* Astronautica Acta. (Vienna)

*Astronom. J.* The Astronomical Journal. (New Haven, Conn.)

*Astronom. Jber.* Astronomischer Jahressbericht. (Berlin)

*Astronom. Nachr.* Astronomische Nachrichten. (Berlin)

*Astronom. Z.* Akademija Nauk Sojuza SSR. Astronomičeskij Žurnal. (Moscow) (Translated as: *Soviet Astronom. AJ*)

*Astrophys. J.* The Astrophysical Journal. (Chicago, Ill.)

*Astrophys. Norvegica.* Det Norske Videnskaps-Akademii i Oslo. Astrophysica Norvegica. (Oslo)

*Astrophysics. Astrophysics.* (A translation of *Astrofizika* of the Academy of Sciences of the Armenian SSR). (New York) (Translation of *Astrofizika*)

*Atatürk Üni. Yayınları Ser.-Mat.* Atatürk Üniversitesi Yayınları-Araştırmalar Serisi—Matematik. Publications of Atatürk University. Research Series—Mathematics. (Erzurum)

*Atti Accad. Gioenia Sci. Natur. Catania.* Atti della Accademia Gioenia di Scienze Naturali in Catania. (Catania)

*Atti Accad. Ligure Sci. Lett.* Atti della Accademia Ligure di Scienze e Lettere. (Genoa)

*Atti Accad. Naz. Lincei Mem. Cl. Sci. Fis. Mat. Natur. Sez. I.* Atti della Accademia Nazionale dei Lincei. Memorie. Classe di Scienze Fisiche, Matematiche e Naturali. Sezione I<sup>a</sup>. (Matematica, Meccanica, Astronomia, Geodesia e Geofisica). (Rome)

*Atti Accad. Naz. Lincei Mem. Cl. Sci. Fis. Mat. Natur. Sez. II.* Atti della Accademia Nazionale dei Lincei. Memorie. Classe di Scienze Fisiche, Matematiche e Naturali. Sezione II<sup>a</sup>. (Fisica, Chimica, Geologia, Paleontologia e Mineralogia). (Rome)

*Atti Accad. Naz. Lincei Rend. Adunanza Solenni.* Atti della Accademia Nazionale dei Lincei. Rendiconti delle Adunanza Solenni. (Rome)

*Atti Accad. Naz. Lincei Rend. Cl. Sci. Fis. Mat. Natur.* Atti della Accademia Nazionale dei Lincei. Rendiconti. Classe di Scienze Fisiche, Matematiche e Naturali. (Rome)

*Atti Accad. Sci. Fis. Mat. Napoli.* Atti dell'Accademia delle Scienze Fisiche e Matematiche di Napoli. (Naples)

*Atti Accad. Sci. Ist. Bologna Cl. Sci. Fis. Mem.* Atti della Accademia delle Scienze dell'Istituto di Bologna. Classe di Scienze Fisiche. Memorie. (Bologna)

*Atti Accad. Sci. Ist. Bologna Cl. Sci. Fis. Rend.* Atti della Accademia delle Scienze dell'Istituto di Bologna. Classe di Scienze Fisiche. Rendiconti. (Bologna)

*Atti Accad. Sci. Lett. Arti Palermo Parte I.* Atti della Accademia di Scienze Lettere e Arti di Palermo. Parte Prima: Scienze. (Palermo)

*Atti Accad. Sci. Torino Cl. Sci. Fis. Mat. Natur.* Atti della Accademia delle Scienze di Torino. Classe di Scienze Fisiche, Matematiche e Naturali. (Turin)

*Atti Sem. Mat. Fis. Univ. Modena.* Atti del Seminario Matematico e Fisico dell'Università di Modena. (Modena)

*Austral. J. Appl. Sci.* Australian Journal of Applied Science. (Melbourne)

*Austral. J. Phys.* Australian Journal of Physics. (Melbourne)

*Austral. J. Sci.* The Australian Journal of Science. (Sydney)

*Austral. J. Statist.* The Australian Journal of Statistics. (Sydney)

*Automat. Remote Control.* Automation and Remote Control. (A translation of *Automatika i Telemekanika*, a publication of the Academy of Sciences of the USSR). (Pittsburgh, Pa.) (Translation of *Automat. i Telemek.*)

*Automatica. Internat. J. Automat. Control Automation.* Automatica. The International Journal on Automatic Control and Automation. (Oxford)

*Automatizace.* Ministerstvo Těžkého Průmyslu. Čs. Vědeckotechnická Společnost-Komise pro Automatizaci. (Prague)

*Avh. Norske Vid.-Akad. Oslo I.* Avhandlinger Utgitt av det Norske Videnskaps-Akademii i Oslo. I. Mat.-Naturv. Klasse. (Oslo)

*Automat. i Telemek.* Akademija Nauk Sojuza SSR. Avtomatika i Telemekanika. (Moscow) (Translated as: *Automat. Remote Control*)

*Automat. i Vyčisl. Tehn.* Avtomatika i Vyčislitel'naja Tehnika. (Riga)

*Automatika.* Akademija Nauk Ukrains'koj RSR. Institut Elektrotehniki. Avtomatika. (Kiev)

*Azerbaijan. Gos. Univ. Učen. Zap. Ser. Fiz.-Mat. i Him. Nauk.* Azerbaijanskij Gosudarstvennyj Universitet im. S. M. Kirova. Učenye Zapiski. Serija Fiziko-Matematičeskikh i Himičeskikh Nauk. (Baku)

*Baškir. Gos. Univ. Učen. Zap.* Baškirskij Gosudarstvennyj Universitet. Učenye Zapiski. (Ufa)

*Bayer. Akad. Wiss. Math.-Natur. Kl. Abh.* Bayerische Akademie der Wissenschaften. Mathematisch-Naturwissenschaftliche Klasse. Abhandlungen. (Munich)

*Bayer. Akad. Wiss. Math.-Natur. Kl. S.-B.* Bayerische Akademie der Wissenschaften. Mathematisch-Naturwissenschaftliche Klasse. Sitzungsberichte. (Munich)

*Behavioral Sci.* Behavioral Science. (Baltimore, Md.—Ann Arbor, Mich.)

ABBREVIATIONS OF NAMES OF JOURNALS

*Beijing Daxue Xuebao Ziran Kexue.* See *Acta Sci. Natur. Univ. Pekinensis.*

*Bell System Tech. J.* The Bell System Technical Journal. (New York)

*Biometrics.* Biometrics. Journal of the Biometric Society. (Blacksburg, Va.)

*Biometrika.* Biometrika. (London)

*BIT = Nordisk Tidskr. Informations-Behandling.*

*Bjull. Inst. Teoreti. Astronom.* Akademija Nauk Sojuza Sovetskikh Socialisticheskikh Respublik. Bjulleten' Instituta Teoretičeskoi Astro-nomii. (Moscow)

*B'lgars. Akad. Nauk. Otd. Mat. Fiz. Nauk. Izv. Fiz. Inst. s Aneb.* B'lgarska Akademija na Naukite. Otdelenie a Matematicheski i Fizicheski Nauki. Izvestija na Fizicheskija Institut s Aneb. (Sofia)

*B'lgars. Akad. Nauk. Otd. Mat. Fiz. Nauk. Izv. Mat. Inst. B'lgarska Akademija na Naukite. Otdelenie za Matematicheski i Fizicheski Nauki. Izvestija na Matematicheskija Institut. (Sofia)*

*Bol. Fac. Ingen. Agrimens. Montevideo.* Boletin de la Facultad de Ingenieria y Agrimensura de Montevideo. (Montevideo)

*Bol. Soc. Mat. Mexicana.* Boletin de la Sociedad Matematica Mexicana. (Mexico City)

*Bol. Soc. Mat. São Paulo.* Boletim da Sociedade de Matematica de São Paulo. (São Paulo)

*Bol. Univ. Paraná Inst. Fis.* Boletim da Universidade do Paraná. Conselho de Pesquisas. Instituto de Fisica. (Paraná)

*Boll. Un. Mat. Ital.* Bollettino della Unione Matematica Italiana. (Bologna)

*Bonn. Math. Schr.* Bonner Mathematische Schriften. (Bonn)

*British J. Hist. Sci.* British Society for the History of Science. British Journal for the History of Science. (London)

*British J. Philos. Sci.* The British Journal for the Philosophy of Science. (Edinburgh)

*Buharsk. Gos. Ped. Inst. Učen. Zap. Ser. Fiz.-Mat. Nauk.* Buharskij Gosudarstvennyj Pedagogicheskij Institut. Učenye Zapiski. Serija Fiziko-Matematicheskikh Nauk. (Bukhara)

*Bul. Akad. Štiinec RSS Moldoven.* Akademija Nauk Moldavskoj SSR. Izvestija Akademii Nauk Moldavskoj SSR. Buletinul Academiei de Štiințe a RSS Moldovenești. (Kishinev)

*Bul. Inst. Politehn. Brașov Ser. A Mec.* Buletinul Institutului Politehnic din Brașov. Seria A. Mecanică. (Brașov) (Formerly: *Lucrăr. Ști. Inst. Politehn. Brașov*)

*Bul. Inst. Politehn. București.* Buletinul Institutului Politehnic București. (Bucharest)

*Bul. Inst. Politehn. Iași.* Buletinul Institutului Politehnic din Iași. Serie Nouă. (Iași)

*Bul. Ști. Inst. Politehn. Cluj.* Buletinul Științific al Institutului Politehnic din Cluj. (Cluj)

*Bul. Ști. Tehn. Inst. Politehn. Timișoara.* Buletinul Științific și Tehnic al Institutului Politehnic Timișoara. Serie Nouă. (Timișoara)

*Bull. Acad. Polon. Sci. Sér. Sci. Math. Astronom. Phys.* Bulletin de l'Académie Polonaise des Sciences. Série des Sciences Mathématiques, Astronomiques et Physiques. (Warsaw)

*Bull. Acad. Serbe Sci. Aris Cl. Sci. Math. Natur. Sci. Math.* Bulletin de l'Académie Serbe des Sciences et des Arts. Classe des Sciences Mathématiques et Naturelles. Sciences Mathématiques. (Belgrade)

*Bull. Amer. Math. Soc.* Bulletin of the American Mathematical Society. (Providence, R.I.)

*Bull. Astronom.* Bulletin Astronomique. (Paris)

*Bull. Astronom. Inst. Netherlands.* Bulletin of the Astronomical Institutes of the Netherlands. (Haarlem)

*Bull. Calcutta Math. Soc.* Bulletin of the Calcutta Mathematical Society. (Calcutta)

*Bull. College Sci. (Baghdad).* Bulletin of the College of Science. (Baghdad)

*Bull. Earthquakes Res. Inst. Univ. Tokyo.* Bulletin of the Earthquake Research Institute, University of Tokyo. (Tokyo)

*Bull. Fac. Educ. Univ. Kagoshima.* Bulletin of the Faculty of Education, University of Kagoshima. (Kagoshima)

*Bull. Fukuoka Gakugei Univ. III.* Bulletin of Fukuoka Gakugei University. III. Natural Sciences. (Fukuoka) (Continued as: *Bull. Fukuoka Univ. Educ. III*)

*Bull. Fukuoka Univ. Educ. III.* Bulletin of Fukuoka University of Education. Part III. Natural Sciences. (Fukuoka) (Formerly: *Bull. Fukuoka Gakugei Univ. III*)

*Bull. Géodésique.* Bulletin Géodésique. (Paris)

*Bull. Inst. Internat. Statist.* Bulletin de l'Institut International de Statistique. (The Hague)

*Bull. JSME.* Bulletin of JSME. (Japan Society of Mechanical Engineers). (Tokyo)

*Bull. Kyoto Gakugei Univ. Ser. B.* Bulletin of the Kyoto Gakugei University. Ser. B. Mathematics and Natural Science. (Kyoto) (Continued as: *Bull. Kyoto Univ. Education Ser. B*)

*Bull. Kyoto Univ. Education Ser. B.* Bulletin of the Kyoto University of Education. Series B. Mathematics and Natural Science. (Kyoto) (Formerly: *Bull. Kyoto Gakugei Univ. Ser. B*)

*Bull. Kyushu Inst. Tech. Math. Natur. Sci.* Bulletin of the Kyushu Institute of Technology. Mathematics, Natural Science. (Tobata)

*Bull. Math. Biophys.* The Bulletin of Mathematical Biophysics. (Ann Arbor, Mich.)

*Bull. Math. Soc. Nanyang Univ.* Majallah Tahun 'Ilmu Pasti. Bulletin of Mathematical Society. Nanyang University. (Singapore)

*Bull. Math. Soc. Sci. Math. Phys. R. P. Roumaine.* Bulletin Mathématique de la Société des Sciences Mathématiques et Physiques de la République Populaire Roumaine. (Bucharest) (Continued as: *Bull. Math. Soc. Sci. Math. R. S. Roumanie*)

*Bull. Math. Soc. Sci. Math. R. S. Roumanie.* Bulletin Mathématique de la Société des Sciences Mathématiques de la République Socialiste de Roumanie. (Bucharest) (Formerly: *Bull. Math. Soc. Sci. Math. Phys. R. P. Roumaine*)

*Bull. Math. Statist.* Bulletin of Mathematical Statistics. (Fukuoka)

*Bull. Nara Univ. Ed. Natur. Sci. Ser. B.* Bulletin of Nara University of Education. Natural Science. Series B. (Nara) (Formerly: *J. Nara Gakugei Univ. Natur. Sci.*)

*Bull. Sci. Conseil Acad. R.S.F. Yugoslav.* Bulletin Scientifique. Conseil des Académies de la RSF de Yougoslavie. (Zagreb) (Continued as: *Bull. Sci. Conseil Acad. R.S.F. Yugoslav. Sect. A*)

*Bull. Sci. Conseil Acad. R.S.F. Yugoslav. Sect. A.* Bulletin Scientifique. Conseil des Académies de la RSF de Yougoslavie. Section A. (Zagreb) (Formerly: *Bull. Sci. Conseil Acad. R.S.F. Yugoslav.*)

*Bull. Sci. Engng. Res. Lab. Waseda Univ.* Bulletin of Science and Engineering Research Laboratory. Waseda University. (Tokyo)

*Bull. Sci. Math.* Bulletin des Sciences Mathématiques. (Paris)

*Bull. Signal. 1 Math. Pures Appl.* Ministère de l'Éducation Nationale. Centre National de la Recherche Scientifique. Bulletin Signaletique. 1. Mathématiques Pures et Appliquées. (Paris)

*Bull. Soc. Amis Sci. Lettres Poznań Sér. B.* Bulletin de la Société des Amis des Sciences et des Lettres de Poznań. Série B: Sciences Mathématiques et Naturelles. (Poznań)

*Bull. Soc. Math. Belg.* Bulletin de la Société Mathématique de Belgique. (Brussels)

*Bull. Soc. Math. France.* Bulletin de la Société Mathématique de France. (Paris)

*Bull. Soc. Math. Grèce.* Bulletin de la Société Mathématique de Grèce. (Athens)

*Bull. Soc. Math. Phys. Macédoine.* Bulletin de la Société des Mathématiciens et des Physiciens de la République Populaire de Macédoine. Bilten na Društvo na Matematičarite i Fizikarite od Socialistička Republika Makedonija. (Skopje)

*Bull. Soc. Roy. Sci. Liège.* Bulletin de la Société Royale des Sciences de Liège. (Liège)

*Bull. Soc. Sci. Lettres Lódz.* Bulletin de la Société des Sciences et des Lettres de Lódz. (Lódz)

*Bull. Tokyo Gakugei Univ.* Bulletin of Tokyo Gakugei University. (Tokyo)

*Bull. Trimest. Inst. Actuaires Franç.* Bulletin Trimestriel de l'Institut des Actuaires Français. (Paris)

ABBREVIATIONS OF NAMES OF JOURNALS

*Bull. Univ. Osaka Prefecture Ser. A.* Bulletin of University of Osaka Prefecture. Series A. Engineering and Natural Sciences. (Osaka)

*C. R. Acad. Bulgare Sci.* Doklady Bolgarskoi Akademii Nauk. Comptes Rendus de l'Académie Bulgare des Sciences. (Sofia)

*C. R. Acad. Sci. Paris Sér. A-B.* Comptes Rendus Hebdomadaires des Séances de l'Académie des Sciences. Séries A et B. (Paris)

*Cahiers Centre Études Recherche Opér.* Cahiers du Centre d'Études de Recherche Opérationnelle. (Brussels)

*Cahiers Centre Math. Statist. Appl. Sci. Social.* Cahiers du Centre de Mathématique et de Statistique Appliquées aux Sciences Sociales de l'Institut de Sociologie Solvay. (Brussels)

*Cahiers de Phys.* Cahiers de Physique. (Paris)

*Cahiers Rhodan.* Cahiers Rhodaniens. (Lyon)

*Cálculo Automát. y Cibernet. Cálculo Automático y Cibernetica.* (Madrid)

*Calcolo.* Calcolo. (Rome)

*Calcutta Statist. Assoc. Bull.* Calcutta Statistical Association Bulletin. (Calcutta)

*Canad. J. Math.* Canadian Journal of Mathematics. Journal Canadien de Mathématiques. (Toronto, Ont.)

*Canad. J. Phys.* Canadian Journal of Physics. (Ottawa, Ont.)

*Canad. Math. Bull.* Canadian Mathematical Bulletin. Bulletin Canadien de Mathématiques. (Toronto, Ont.)

*Časopis Pěst. Mat.* Československá Akademie Věd. Časopis pro Pěstování Matematiky. (Prague)

*Čeljabinsk. Gos. Ped. Inst. Trudy.* Čeljabinskij Gosudarstvennyi Pedagogičeskij Institut. Trudy. (Chelyabinsk)

*Centaurus.* Centaurus. (Copenhagen)

*Českoslov. Časopis Fys. Sekce A.* Československá Akademie Věd. Československý Časopis Pro Fyziku Sekce A. (Prague)

*Chalmers Tekn. Högsk. Handl.* Chalmers Tekniska Högakolans Handlingar. Transactions of Chalmers University of Technology, Gothenburg, Sweden. (Gothenburg)

*Chinese J. Phys. (Peking).* Chinese Journal of Physics (Peking). (A translation of Acta Physica Sinica of the Chinese Academy of Sciences, Peking). (New York) (Translation of *Acta Phys. Sinica*)

*Chinese Math.—Acta.* Chinese Mathematics. Translation of Acta Mathematica Sinica. (Providence, R.I.) (Translation of *Acta Math. Sinica*)

*Cho-són Kwa-hak-wón T'ong-bo.* (Academy of Science of the People's Democratic Republic of Korea. Bulletin) Cho-són Min-ju-ju-ü In-min Kong-hwa-kuk Kwa-hak-wón. T'ong-bo. (Pyongyang)

*Ciéncia (Lisboa).* Ciéncia. Revista de Cultura Científica. (Lisbon)

*Ciencias (Madrid).* Las Ciencias. (Madrid)

*Collect. Math.* Consejo Superior de Investigaciones Científicas. Universidad de Barcelona. Collectanea Mathematica. (Barcelona)

*Colloq. Math.* Colloquium Mathematicum. (Warsaw)

*Com. Acad. R. P. Române.* Comunicările Academiei Republicii Populare Române. (Bucharest)

*Comm. ACM.* Communications of the Association for Computing Machinery. (New York)

*Comm. Dublin Inst. Adv. Studies Ser. A.* Communications of the Dublin Institute for Advanced Studies. Series A. (Dublin)

*Comm. Fac. Sci. Univ. Ankara Sér. A.* Communications de la Faculté des Sciences de l'Université d'Ankara. Série A. Mathématiques-Physique-Astronomie. (Ankara)

*Comm. Math. Phys.* Communications in Mathematical Physics. (New York)

*Comm. Pure Appl. Math.* Communications on Pure and Applied Mathematics. (New York)

*Comment. Math. Helv.* Commentarii Mathematici Helvetici. (Zürich)

*Comment. Math. Univ. Carolinæ.* Commentationes Mathematicae Universitatis Carolinae. (Prague)

*Comment. Math. Univ. St. Paul.* Commentarii Mathematici Universitatis Sancti Pauli. Rikkyo Daigaku Sugaku Zasshi. (Tokyo)

*Compositio Math.* Compositio Mathematica. (Groningen)

*Comput. Bull.* The Computer Bulletin. (London)

*Comput. J.* The Computer Journal. (London)

*Comput. Rev.* Computing Reviews. (New York) (Usually abbreviated *CR* in the text of *Math. Reviews*)

*Computing (Arch. Elektron. Rechnen).* Computing. Archiv für elektronisches Rechnen. Archives for Electronic Computing. (Vienna)

*Confer. Sem. Mat. Univ. Bari.* Conferenze del Seminario di Matematica dell'Università di Bari. (Bari)

*CORS J.* CORS J. The Canadian Operational Research Society Journal. (Toronto, Ont.)

*Cosmic Research.* Cosmic Research. (A translation of *Kosmicheskie Issledovaniya* of the Academy of Sciences of the USSR). (New York) (Translation of *Kosmich. Issled.*)

*CR.* Computing Reviews. (New York)

*Čuvaš. Gos. Ped. Inst. Učen. Zap.* Ministerstvo Prosvetlenija RSFSR. Čuvašskij Gosudarstvennyi Pedagogičeskij Institut im. I. Ja. Jakovleva. Učenye Zapiski. (Cheboksary)

*Cybernetica.* Cybernetica. (Namur)

*Cybernetics.* Cybernetics. (New York) (A translation of *Kibernetika (Kiev)*)

*Czasopis. Techn.* Politechnika Krakowska i Krakowskie Zjednoczenie Budownictwa. Czasopismo Techniczne. (Kraków)

*Czechoslovak J. Phys. Sect. B.* Českoslovackaja Akademija Nauk. Českoslovackij Fizičeskij Žurnal. Czechoslovak Academy of Sciences. Czechoslovak Journal of Physics. (Prague)

*Czechoslovak Math. J.* Českoslovackaja Akademija Nauk. Českoslovackij Matematičeskij Žurnal. Czechoslovak Mathematical Journal. (Prague)

*Defence Sci. J.* Defence Science Journal. (Delhi)

*Denki Gakkai Zasshi.* Institute of Electrical Engineers of Japan. Denki Gakkai Zasshi. (Tokyo) (Translated as: *Electrical Engrg. Japan*)

*Denki Tsushin Gakkai Zasshi.* Institute of Electrical Communication Engineers of Japan. Denki Tsushin Gakkai Zasshi. (Tokyo) (Translated as: *Electron. Commun. Japan*)

*Deutsche Geodät. Kommiss. Bayer. Akad. Wiss. Reihe A Theoret. Geodäsie.* Deutsche Geodätische Kommission bei der Bayerischen Akademie der Wissenschaften. Reihe A. Theoretische Geodäsie. (Munich)

*Deutsche Geodät. Kommiss. Bayer. Akad. Wiss. Reihe B Angew. Geodäsie.* Deutsche Geodätische Kommission bei der Bayerischen Akademie der Wissenschaften. Reihe B. Angewandte Geodäsie. (Munich)

*Dialectica.* Dialectica. (Neuchâtel)

*Diferencial'nye Uravnenija.* Diferencial'nye Uravnenija. (Minsk) (Translated as: *Differential Equations*)

*Differential Equations.* Differential Equations. (New York) (Translation of *Diferencial'nye Uravnenija*)

*Discussions Faraday Soc.* Discussions of the Faraday Society. (London)

*Diskret. Analiz.* Akademija Nauk SSSR. Sibirskoe Otdelenie. Institut Matematiki. Diskretnyj Analiz. Sbornik Trudov. (Novosibirsk)

*Dissertationes Math.* Rozprawy Mat. Polskiej Akademii Nauk. Instytut Matematyczny. Dissertationes Mathematicae. Rozprawy Matematyczne. (Warsaw) (Formerly: *Rozprawy Mat.*)

*Dokl. Akad. Nauk BSSR.* Doklady Akademii Nauk BSSR. (Minsk)

*Dokl. Akad. Nauk SSSR.* Doklady Akademii Nauk SSSR. (Moscow) (Mathematics section translated as: *Soviet Math. Dokl.*; Physics section translated as: *Soviet Physics Dokl.*)

*Dokl. Akad. Nauk Tadzhik. SSR.* Doklady Akademii Nauk Tadzhikskoj SSR. (Dushanbe)

*Dopovidi Akad. Nauk Ukrains. RSR.* Dopovidi Akademii Nauk Ukrains'koj RSR. (Kiev) (Continued as: *Dopovidi Akad. Nauk Ukrain. RSR Ser. A* and *Dopovidi Akad. Nauk Ukrain. RSR Ser. B*)

ABBREVIATIONS OF NAMES OF JOURNALS

*Dopovid Akad. Nauk Ukrainsk RSR Ser. A.* Dopovid Akademii Nauk Ukrains'koi RSR. Serija A. (Kiev) (Formerly: *Dopovid Akad. Nauk Ukrainsk RSR*)

*Dopovid Akad. Nauk Ukrainsk RSR Ser. B.* Dopovid Akademii Nauk Ukrains'koi RSR. Serija B. (Kiev) (Formerly: *Dopovid Akad. Nauk Ukrainsk RSR*)

*Duke Math. J.* Duke Mathematical Journal. (Durham, N.C.)

*Econometrics.* Econometrica. Journal of the Econometric Society. (Chicago, Ill.)

*EEA.* Science Abstracts. Electrical & Electronics Abstracts. (London)

*Eesti NSV Tead. Akad. Füüs. Astronom. Inst. Uurim.* Eesti NSV Teaduste Akadeemia Füüsika ja Astronomia Instituudi Uurimused. (Trudy Instituta Fiziki i Astronomii Akademii Nauk Estoniakoi SSR). Publikatsii Tartuksoi Astronomiäskoi Observatorii. (Tartu)

*Eesti NSV Tead. Akad. Tartu Astronom. Observe. Publ.* Eesti NSV Teaduste Akadeemia Tartu Astronomia Observatoriumi Publikatsioonid. (Tartu)

*Eesti NSV Tead. Akad. Toimetised Füüs.-Mat.* Eesti NSV Teaduste Akadeemia Toimetised. Füüsika-Matemaatika. Izvestija Akademii Nauk Estoniakoi SSR. Serija Fizika-Matematika. (Tallin) (Formerly: *Eesti NSV Tead. Akad. Toimetised Füüs.-Mat. Tehn.-tead. Seer.*)

*Eesti NSV Tead. Akad. Toimetised Füüs.-Mat. Tehn.-tead. Seer.* Eesti NSV Teaduste Akadeemia Toimetised. Füüsika-Matemaatika ja Tehnikateaduste Seeria. Izvestija Akademii Nauk Estoniakoi SSR. Serija Fiziko-Matematicheskikh i Tekhnicheskikh Nauk. (Tallin) (Continued as: *Eesti NSV Tead. Akad. Toimetised Füüs.-Mat.*)

*Ekonom.-Mat. Obzor.* Československá Akademie Věd. Ekonomicko-Matematický Obzor. (Prague)

*Electrical & Electronics Abstracts.* Science Abstracts. Electrical & Electronics Abstracts. (London) (Usually abbreviated *EEA* in the text of *Math. Reviews*)

*Electrical Engrg. Japan.* Institute of Electrical and Electronics Engineers. Electrical Engineering in Japan. (A translation of *Denki Gakkai Zasshi* of the Institute of Electrical Engineers of Japan) (New York) (Translation of *Denki Gakkai Zasshi*)

*Electron. Commun. Japan.* Institute of Electrical and Electronics Engineers. Electronics and Communications in Japan. (A translation of *Denki Tsushin Gakkai Zasshi* of the Institute of Electrical Communication Engineers of Japan). (New York) (Translation of *Denki Tsushin Gakkai Zasshi*)

*Elektron. Dateneerarbeitung.* Elektronische Datenverarbeitung. Fachberichte über programmgesteuerte Maschinen und ihre Anwendung. (Braunschweig)

*Elektron. Informationsverarbeit. Kybernetik.* Sektion für Kybernetik beim Präsidium der Deutschen Akademie der Wissenschaften zu Berlin und der Mathematischen Gesellschaft der Deutschen Demokratischen Republik. Elektronische Informationsverarbeitung und Kybernetik. (Berlin)

*Elem. Math.* Elemente der Mathematik. Revue de Mathématiques Élémentaires. Rivista di Matematica Elementare. (Basel)

*Engrg. Cybernetics.* Engineering Cybernetics. English Edition of *Tehnicheskaja Kibernetika*. (New York) (Translation of *Izv. Akad. Nauk SSSR Tehn. Kibernet.*)

*Enseignement Math.* L'Enseignement Mathématique. (Geneva)

*Erevan. Armjan. Gos. Ped. Inst. im. H. Abovjana Učen. Zap. Ser. Mat. Nauk.* Erevanskil Armjanskil Gosudarstvennyi Pedagogičeskij Institut im. H. Abovjana. Učenye Zapiski. Serija Matematičeskikh Nauk. (Erevan)

*Ericsson Technica.* Ericsson Technics. (Stockholm)

*Estadist. Espanola.* Estadística Espanola. (Madrid)

*Estadística.* Estadística. (Washington, D.C.)

*Euclides (Groningen).* Euclides. Tijdschrift voor de Didactiek der Exacte Vakken. (Groningen)

*Euclides (Madrid).* Euclides. Revista Mensual de Ciencias Exactas, Fisicas, Químicas, Naturales y Aplicaciones Técnicas. (Madrid)

*Fac. Ingen. Agrimens. Montevideo Publ. Didáct. Inst. Mat. Estadist.* Facultad de Ingeniería y Agrimensura. Montevideo. Publicaciones Didácticas del Instituto de Matemáticas y Estadística. (Montevideo)

*Fac. Sci. Univ. Skopje Annuaire.* Faculté des Sciences de l'Université de Skopje. Annuaire. (Skopje)

*Fergan. Gos. Ped. Inst. Učen. Zap.* Ministerstvo Vysšego i Srednego Special'nogo Obrazovaniya Uzbeckskei SSR. Ferganskil Gosudarstvennyi Pedagogičeskij Institut imeni Ulugbekova. Učenye Zapiski. Serija Matematičeskaja. (Fergana)

*Fibonacci Quart.* The Fibonacci Quarterly. Official Organ of the Fibonacci Association. A journal devoted to the study of integers with special properties. (St. Mary's College, Calif.)

*Fiz.-Mat. Spis. B'lgars. Akad. Nauk.* B'lgarska Akademija na Nauk Fizičeski Institut. Matematičeski Institut. Fiziko-Matematicesko Spisanie. (Sofia)

*Fiz. Tverd. Tela.* Akademija Nauk SSSR. Fizika Tverdogo Tela. (Moscow-Leningrad) (Translated as: *Soviet Physics Solid State*)

*Forsch. Ingenieurwesen.* Forschung im Ingenieurwesen. (Düsseldorf)

*Fortschr. Physik.* Fortschritte der Physik. (Berlin)

*Found. Language.* International Journal of Language and Philosophy. Foundations of Language. (Dordrecht)

*Fund. Math.* Polska Akademia Nauk. Fundamenta Mathematicae. (Warsaw)

*Funktional. Ekvac.* Fako de l'Funktionalaj Ekvacioj Japana Matematika Societo. Funkcionalaj Ekvacioj. (Serie Internacia). (Kobe)

*Funktional. Anal. i Prilozhen.* Akademija Nauk SSSR. Funkcional'nyi Analiz i ego Prilozhenija. (Moscow)

*Fyz. Časopis Slovens. Akad. Vied.* Fyzikálny Časopis Slovenskej Akadémie Vied. (Bratislava) (Formerly: *Mat.-Fyz. Časopis Slovens. Akad. Vied*)

*Gac. Mat. (Madrid).* Gaceta Matemática. (Madrid)

*Ganita.* Ganita (Mathematics). Bharat Ganita Parishad (Bihar Mathematical Society). (Lucknow)

*Gaz. Mat. (Lisboa).* Gazeta de Matemática. (Lisbon)

*Gaz. Mat. Ser. A.* Societatea de Științe Matematice din R. P. R. Gazeta Matematică. Publicație Pentru Studiu și Răspândirea Științelor Matematice. Seria A. (Bucharest)

*Genet. Res.* Genetical Research. (New York)

*Geodæt. Inst. Medd.* Geodætisk Institut. Meddelelse. (Copenhagen)

*Geofys. Publ. Norske Vid.-Akad. Oslo.* Geofysiske Publikasjoner Utgitt av det Norske Videnskaps-Akademie i Oslo. (Oslo)

*Giorn. Ist. Ital. Attuari.* Giornale dell'Istituto Italiano degli Attuari. (Rome)

*Giorn. Mat. Battaglini.* Giornale di Matematiche di Battaglini. (Naples)

*Glasgow Math. J.* Glasgow Mathematical Journal. (Glasgow) (Formerly: *Proc. Glasgow Math. Assoc.*)

*Glasnik Mat.-Fiz. Astronom. Ser. II Društvo Mat. Fiz. Hrvatske.* Glasnik Matematičko-Fizički i Astronomski. Periodicum Mathematico-Physicum et Astronomicum. Serija II. Društvo Matematičara i Fizičara Hrvatske. Societas Mathematicorum et Physicorum Croaticae. (Zagreb) (Continued as: *Glasnik Mat. Ser. III*)

*Glasnik Mat. Ser. III.* Društvo Matematičara i Fizičara S. R. Hrvatske. Glasnik Matematički. Serija III. (Zagreb) (Formerly: *Glasnik Mat.-Fiz. Astronom. Ser. II Društvo Mat. Fiz. Hrvatske*)

*Gruzin. Politehn. Inst. Trudy.* Gruzinskil Politehničeskij Institut im. V. I. Lenina. Trudy. (Tbilisi) See *V. I. Lenin. Sakharth. Politekhn. Inst. Šrom.*

*Har'kov. Gos. Univ. Učen. Zap.* Ministerstvo Vysšego i Srednego Special'nogo Obrazovaniya USSR. Vestnik Har'kovskogo Gosudarstvennogo Universiteta. Serija Mechaniko-Matematiceskaja. Zapiski Mechaniko-Matematiceskogo Fakulteta i Har'kovskogo Matematiceskogo Obščestva. (Kharkov) (Continued as: *Vestnik Har'kov. Gos. Univ.*)

*Helv. Phys. Acta.* Helvetica Physica Acta. Societatis Physicae Helveticae Commentaria Publica. (Basel)

*Hitotsubashi J. Arts Sci.* Hitotsubashi Journal of Arts & Sciences, Hitotsubashi University. (Tokyo)

ABBREVIATIONS OF NAMES OF JOURNALS

*Hochfrequenztech. Elektroakust.* Hochfrequenztechnik und Elektroakustik. (Leipzig)

*Houille Blanche.* La Houille Blanche. Revue de l'Ingénieur Hydraulicien. (Grenoble)

*IBM J. Res. Develop.* IBM Journal of Research and Development. (New York)

*IBM Systems J.* International Business Machines Corporation. IBM Systems Journal. (Armonk, N.Y.)

*Icarus.* Icarus. International Journal of the Solar System. (New York)

*ICC Bull.* International Computation Centre Bulletin. Centre International de Calcul. (Rome)

*ICSU Rev. World Sci.* ICSU Review of World Science. (Amsterdam)

*IEEE J. Quantum Electron.* IEEE Journal of Quantum Electronics. (New York)

*IEEE Spectrum.* IEEE Spectrum. (New York)

*IEEE Trans. Antennas and Propagation.* IEEE Transactions on Antennas and Propagation. (New York)

*IEEE Trans. Automatic Control.* IEEE Transactions on Automatic Control. (New York)

*IEEE Trans. Circuit Theory.* IEEE Transactions on Circuit Theory. (New York)

*IEEE Trans. Comm. and Electronics.* IEEE Transactions on Communication and Electronics. (New York)

*IEEE Trans. Comm. Tech.* IEEE Transactions on Communication Technology. (New York)

*IEEE Trans. Electronic Computers.* IEEE Transactions on Electronic Computers. (New York)

*IEEE Trans. Information Theory.* IEEE Transactions on Information Theory. (New York)

*IEEE Trans. Nuclear Science.* IEEE Transactions on Nuclear Science. (New York)

*IEEE Trans. Reliability.* IEEE Transactions on Reliability. (New York)

*IEEE Trans. Space Electronics and Telemetry.* IEEE Transactions on Space Electronics and Telemetry. (New York)

*Illinois J. Math.* Illinois Journal of Mathematics. (Urbana, Ill.)

*Indian J. Math.* Indian Journal of Mathematics. (Allahabad)

*Indian J. Mech. Math.* Indian Journal of Mechanics and Mathematics. (Calcutta)

*Indian J. Phys.* Indian Journal of Physics and Proceedings of the Indian Association for the Cultivation of Science. (Calcutta)

*Indian J. Theoret. Phys.* Indian Journal of Theoretical Physics. (Calcutta)

*Information and Control.* Information and Control. (New York)

*Information Processing in Japan.* Information Processing in Japan. (Tokyo)

*Information Storage and Retrieval.* Information Storage and Retrieval. (Oxford-New York)

*Ing.-Arch.* Ingenieur-Archiv. (Berlin-Göttingen-Heidelberg)

*Inst. Hautes Études Sci. Publ. Math.* Institut des Hautes Études Scientifiques. Publications Mathématiques. (Paris)

*Internat. J. Comput. Math.* International Journal of Computer Mathematics. (New York)

*Internat. J. Control.* International Journal of Control. (London) (Formerly: *J. Electronics Control*)

*Internat. J. Electronics.* International Journal of Electronics. (London) (Formerly: *J. Electronics Control*)

*Internat. J. Engrg. Sci.* International Journal of Engineering Science. (Oxford-New York)

*Internat. J. Mech. Sci.* International Journal of Mechanical Sciences. (Oxford)

*Internat. J. Non-linear Mech.* International Journal of Non-linear Mechanics. (New York)

*Invent. Math.* Inventiones Mathematicae. (Berlin)

*Inž. Č. Mek. Tverd. Tela.* Inženernyj Žurnal Mechanika Tverdogo Tela. Organ Otdelenija Tehničeskikh Nauk i Instituta Mechaniki Akademii Nauk SSSR. (Moscow)

*Inž.-Stroitel. Inst. Kulibyšev. Sb. Trudov.* Moskovskij Ordona Trudovogo Krašnogo Znameni Inženerno-Stroitel'nyj Institut im. V. V. Kulibyševa. Sbornik Trudov. (Moscow)

*Iosis.* Isis. An International Review Devoted to the History of Science and Civilization. (Cambridge, Mass.)

*Israel J. Math.* Israel Journal of Mathematics. (Jerusalem)

*Ist. Lombardo Accad. Sci. Lett. Rend. A.* Istituto Lombardo. Accademia di Scienze e Lettere. Rendiconti. Scienze Matematiche, Fisiche, Chimiche e Geologiche. A. (Milan)

*Ist. Lombardo Accad. Sci. Lett. Rend. Parte Gen. e Atti Uff.* Istituto Lombardo Accademia di Scienze e Lettere. Rendiconti. Parte Generale e Atti Ufficiali. (Milan)

*Ist. Veneto Sci. Lett. Arti Atti Cl. Sci. Mat. Natur.* Istituto Veneto de Scienze, Lettere ed Arti. Venezia. Atti. Classe de Scienze Matematiche e Naturali. (Venice)

*İstanbul Tek. Üniv. Bül.* İstanbul Teknik Üniversitesi Bülteni. Bulletin of the Technical University of İstanbul. (İstanbul)

*İstanbul Üniv. Fen Fak. Mec. Ser. A.* İstanbul Üniversitesi Fen Fakültesi Mecmuası. A Serisi: Sırfi ve Tatbiki Matematik. Revue de la Faculté des Sciences de l'Université d'Istanbul. Série A: Mathématiques Pures et Appliquées. (İstanbul)

*İstanbul Üniv. Fen Fak. Mec. Ser. C.* İstanbul Üniversitesi Fen Fakültesi Mecmuası. Seri C: Astronomi-Fizik-Kimya. Revue de la Faculté des Sciences de l'Université d'Istanbul. Série C: Astronomie-Physique-Chimie. (İstanbul)

*Istor.-Astronom. Issled.* Istoriko-Astronomičeskie Issledovaniya. (Moscow)

*Istor.-Mat. Issled.* Istoriko-Matematičeskie Issledovaniya. (Moscow-Leningrad)

*Ivanov. Gos. Ped. Inst. Učen. Zap.* Ministerstvo Prosvětlenija RSFSR. Ivanovskij Gosudarstvennyj Pedagogičeskij Institut im. D. A. Furmanova. Ivanovskoe Matematičeskoe Obščestvo. Učenye Zapiski. (Ivanovo)

*Izv. Acad. Sci. USSR Atmospher. Ocean. Phys.* Izvestiya Academy of Sciences USSR. Atmospheric and Oceanic Physics. (Washington, D.C.) (Translation of *Izv. Akad. Nauk SSSR Ser. Fiz. Atmosfer. i Okeana*)

*Izv. Acad. Sci. USSR Phys. Solid Earth.* Izvestiya Academy of Sciences USSR. Physics of the Solid Earth. (Washington, D.C.) (Translation of *Izv. Akad. Nauk SSSR Ser. Fiz. Zemli*)

*Izv. Akad. Nauk Armjan. SSR Ser. Fiz.* Izvestija Akademii Nauk Armjanskoi SSR. Serija Fizika. (Erevan)

*Izv. Akad. Nauk Armjan. SSR Ser. Mat.* Izvestija Akademii Nauk Armjanskoi SSR. Serija Matematika. (Erevan)

*Izv. Akad. Nauk Armjan. SSR Ser. Meh.* Izvestija Akademii Nauk Armjanskoi SSR. Serija Mechanika. (Erevan)

*Izv. Akad. Nauk Armjan. SSR Ser. Tehn. Nauk.* Izvestija Akademii Nauk Armjanskoi SSR. Serija Tehničeskikh Nauk. (Erevan)

*Izv. Akad. Nauk Azerbaidžan. SSR Ser. Fiz.-Tehn. Mat. Nauk.* Izvestija Akademii Nauk Azerbaidžanskoi SSR. Serija Fiziko-Tehničeskikh i Matematičeskikh Nauk. (Baku)

*Izv. Akad. Nauk Kazah. SSR Ser. Fiz.-Mat. Nauk.* Izvestija Akademii Nauk Kazahskoi SSR. Serija Fiziko-Matematičeskikh Nauk. (Alma-Ata)

*Izv. Akad. Nauk Mold. SSR = Bul. Akad. Științe RSS Moldoven.*

*Izv. Akad. Nauk SSSR Ser. Fiz.* Izvestija Akademii Nauk SSSR. Serija Fizika. (Moscow)

*Izv. Akad. Nauk SSSR Ser. Fiz. Atmosfer. i Okeana.* Izvestija Akademii Nauk SSSR. Serija Fizika Atmosfery i Okeana. (Moscow) (Translated as: *Izv. Acad. Sci. USSR Atmospher. Ocean. Phys.*)

*Izv. Akad. Nauk SSSR Ser. Fiz. Zemli.* Izvestija Akademii Nauk SSSR. Serija Fizika Zemli. (Moscow) (Translated as: *Izv. Acad. Sci. USSR Phys. Solid Earth*)

*Izv. Akad. Nauk SSSR Ser. Mat.* Izvestija Akademii Nauk SSSR. Serija Matematičeskaja. (Moscow)

ABBREVIATIONS OF NAMES OF JOURNALS

*Izv. Akad. Nauk SSSR Ser. Meh. Židk. Gaza.* Akademija Nauk SSSR. Izvestija Akademii Nauk SSSR. Serija Mehanika Židkosti i Gaza. (Moscow)

*Izv. Akad. Nauk SSSR Tehn. Kibernet.* Izvestija Akademii Nauk SSSR. Tekhnicheskaja Kibernetika. (Moscow) (Translated as: *Engng. Cybernetics*)

*Izv. Akad. Nauk Tadžik. SSR Otdel. Fiz.-Tehn. i Him. Nauk.* Izvestija Akademii Nauk Tadžikskoi SSR. Otdelenie Fiziko-Tekhnicheskikh i Himicheskikh Nauk. (Dushanbe)

*Izv. Akad. Nauk Turkmen. SSR Ser. Fiz.-Tehn. Him. Geol. Nauk.* Izvestija Akademii Nauk Turkmeneskoi SSR. Serija Fiziko-Tekhnicheskikh, Himicheskikh i Geologicheskikh Nauk. (Aškhabad)

*Izv. Akad. Nauk UzSSR Ser. Fiz.-Mat. Nauk.* Izvestija Akademii Nauk UzSSR. Serija Fiziko-Matematicheskikh Nauk. UzSSR Fanlar Akademijasining Abhoroti. Fizika-Matematika Fanlari Serijasi. (Taškent)

*Izv. Kazan. Fil. Akad. Nauk SSSR Ser. Fiz.-Mat. i Tehn. Nauk.* Izvestija Kazanskogo Filiala Akademii Nauk SSSR. Serija Fiziko-Matematicheskikh i Tehnicheskikh Nauk. (Kazan)

*Izv. Krymsk. Ped. Inst.* Izvestija Krymskogo Pedagogicheskogo Instituta im. M. V. Frunze. (Simferopol)

*Izv. Sibirsk. Otd. Akad. Nauk SSSR.* Izvestija Sibirskogo Otdelenija. Akademija Nauk SSSR. (Novosibirsk)

*Izv. Vuzov = Izv. Vyš. Učebn. Zaved. Matematika.*

*Izv. Vyš. Učebn. Zaved. Aviacion. Tehn.* Ministerstvo Vyšego i Srednego Special'nogo Obrazovaniya SSSR. Izvestija Vyših Učebnyh Zavedenij. Aviacionnaja Tehnika. (Kazan)

*Izv. Vyš. Učebn. Zaved. Matematika.* Ministerstvo Vyšego Obrazovaniya SSSR. Izvestija Vyših Učebnyh Zavedenij. Matematika. (Kazan)

*Izv. Vyš. Učebn. Zaved. Radioelektron.* Ministerstvo Vyšego i Srednego Special'nogo Obrazovaniya SSSR. Izvestija Vyših Učebnyh Zavedenij. Radioelektronika. (Kiev) (Translated as: *Soviet Radio Engng.*) (Formerly: *Izv. Vyš. Učebn. Zaved. Radiotekhn.*)

*Izv. Vyš. Učebn. Zaved. Radiofizika.* Ministerstvo Vyšego i Srednego Special'nogo Obrazovaniya SSSR. Izvestija Vyših Učebnyh Zavedenij. Radiofizika. (Gorki) (Translated as: *Soviet Radiophys.*)

*Izv. Vyš. Učebn. Zaved. Radiotekhn.* Ministerstvo Vyšego i Srednego Special'nogo Obrazovaniya SSSR. Izvestija Vyših Učebnyh Zavedenij. Radiotekhnika. (Kiev) (Translated as: *Soviet Radio Engng.*) (Continued as: *Izv. Vyš. Učebn. Zaved. Radioelektron.*)

*J. Acoust. Soc. Amer.* The Journal of the Acoustical Society of America. (New York)

*J. Algebra.* Journal of Algebra. (New York)

*J. Amer. Statist. Assoc.* Journal of the American Statistical Association. (Washington, D.C.)

*J. Analyse Math.* Journal d'Analyse Mathématique. (Jerusalem)

*J. Annamalai Univ. Part B Sci.* Journal of the Annamalai University. Part B. Sciences. (Annamalainagar)

*J. Appl. Math. Mech.* Journal of Applied Mathematics and Mechanics. (Translation of the Soviet journal *Prikladnaja Matematika i Mekhanika*). (New York) (Translation of *Prikl. Mat. Mekh.*)

*J. Appl. Phys.* Journal of Applied Physics. (New York)

*J. Appl. Probability.* Journal of Applied Probability. (East Lansing, Mich.)

*J. Assoc. Comput. Mach.* Journal of the Association for Computing Machinery. (New York)

*J. Atmospheric Sci.* Journal of the Atmospheric Sciences. (Boston, Mass.)

*J. Austral. Math. Soc.* The Journal of the Australian Mathematical Society. (Sydney)

*J. Chem. Phys.* The Journal of Chemical Physics. (New York)

*J. China Univ. Sci. Techn.* Journal of the China University of Science and Technology. Zhongguo Kexue Jishu Daxue Xuebao. (Peking)

*J. College Arts Sci. Chiba Univ.* Journal of the College of Arts and Sciences, Chiba University. (Chiba)

*J. Combinatorial Theory.* Journal of Combinatorial Theory. (New York)

*J. Computational Phys.* Journal of Computational Physics. (New York)

*J. Cuneiform Studies.* Journal of Cuneiform Studies. (New Haven, Conn.)

*J. Differential Equations.* Journal of Differential Equations. (New York)

*J. Differential Geometry.* Journal of Differential Geometry. (Bethlehem, Pa.)

*J. Electronics Control.* Journal of Electronics and Control. (London) (Continued as: *Internat. J. Electronics and Internat. J. Control*)

*J. Engrg. Math.* Journal of Engineering Mathematics. (Groningen)

*J. Fac. Engrg. Chiba Univ.* Journal of the Faculty of Engineering, Chiba University. (Chiba)

*J. Fac. Engrg. Univ. Tokyo Ser. B.* Journal of the Faculty of Engineering, University of Tokyo. Series B. (Tokyo)

*J. Fac. Sci. Hokkaido Univ. Ser. I.* Journal of the Faculty of Science. Hokkaido University. Series I. Mathematics. (Sapporo)

*J. Fac. Sci. Univ. Tokyo Sect. I.* Journal of the Faculty of Science. University of Tokyo. Section I. Mathematics, Astronomy, Physics, Chemistry. (Tokyo)

*J. Fluid Mech.* Journal of Fluid Mechanics. (London)

*J. Franklin Inst.* Journal of the Franklin Institute. (Philadelphia, Pa.)

*J. Gakugei Tokushima Univ.* Journal of Gakugei. Tokushima University. (Tokushima)

*J. Geophys. Res.* Journal of Geophysical Research. (Washington, D.C.)

*J. Indian Inst. Sci.* Journal of the Indian Institute of Science. (Bangalore)

*J. Indian Math. Soc.* The Journal of the Indian Mathematical Society. (Madras)

*J. Indian Soc. Agric. Statist.* Journal of the Indian Society of Agricultural Statistics. (New Delhi)

*J. Indian Statist. Assoc.* Journal of the Indian Statistical Association. (Bombay)

*J. Inst. Actuar.* Journal of the Institute of Actuaries. (London)

*J. Inst. Math. Appl.* Journal of the Institute of Mathematics and its Applications. (New York)

*J. Karnataka Univ. Sci.* Journal of the Karnataka University. Science. (Dharwar)

*J. London Math. Soc.* The Journal of the London Mathematical Society. (London)

*J. Madras Univ. B.* Journal of the Madras University. B. Contributions in Mathematics, Physical and Biological Sciences. (Madras)

*J. Math. Anal. Appl.* Journal of Mathematical Analysis and Applications. (New York)

*J. Math. and Phys.* Journal of Mathematics and Physics. (Cambridge, Mass.)

*J. Math. Kyoto Univ.* Journal of Mathematics of Kyoto University. (Kyoto)

*J. Math. Mech.* Journal of Mathematics and Mechanics. (Bloomington, Ind.)

*J. Math. Pures Appl.* Journal de Mathématiques Pures et Appliquées. (Paris)

*J. Math. Soc. Japan.* Journal of the Mathematical Society of Japan. (Tokyo)

*J. Mathematical Phys.* Journal of Mathematical Physics. (New York)

*J. Mathematical Psychology.* Journal of Mathematical Psychology. (New York)

*J. Méc. Phys. Atmos.* Journal de Mécanique et de Physique de l'Atmosphère. (Paris)

*J. Mécanique.* Journal de Mécanique. (Paris)

*J. Mech. Phys. Solids.* Journal of the Mechanics and Physics of Solids. (London)

*J. Nara Gakugei Univ. Natur. Sci.* The Journal of Nara Gakugei University. Natural Science. (Nara) (Continued as: *Bull. Nara Univ. Ed. Natur. Sci.*)

*J. Natur. Sci. and Math.* The Journal of Natural Sciences and Mathematics. (Lahore)

*J. Operations Res. Soc. Japan.* Journal of the Operations Research Society of Japan. (Tokyo)

ABBREVIATIONS OF NAMES OF JOURNALS

*J. Opt. Soc. Amer.* Journal of the Optical Society of America. (New York)

*J. Osaka Inst. Sci. Tech. Part I.* Journal of the Osaka Institute of Science and Technology. (Kinki University). Part I. Mathematics and Physics. (Osaka)

*J. Phys. Soc. Japan.* Journal of the Physical Society of Japan. (Tokyo)

*J. Proc. Roy. Soc. New South Wales.* Journal and Proceedings of the Royal Society of New South Wales. (Sydney)

*J. Reine Angew. Math.* Journal für die reine und angewandte Mathematik. (Berlin)

*J. Res. Natl. Bur. Standards Sect. B.* Journal of Research of the National Bureau of Standards. Section B. Mathematics and Mathematical Physics. (Washington, D.C.)

*J. Roy. Aeronaut. Soc.* The Journal of the Royal Aeronautical Society. (London)

*J. Roy. Astronom. Soc. Canada.* The Journal of the Royal Astronomical Society of Canada. (Toronto, Ont.)

*J. Roy. Statist. Soc. Ser. A.* Journal of the Royal Statistical Society. Series A (General). (London)

*J. Roy. Statist. Soc. Ser. B.* Journal of the Royal Statistical Society. Series B (Methodological). (London)

*J. Sci. Engrg. Res.* Journal of Science and Engineering Research. (Kharagpur)

*J. Sci. Hiroshima Univ. Ser. A-I Math.* Journal of Science of the Hiroshima University. Series A-I (Mathematics). (Hiroshima)

*J. Sci. Res. Banaras Hindu Univ.* The Journal of Scientific Research of the Banaras Hindu University. (Banaras)

*J. Ship Res.* Journal of Ship Research. (New York)

*J. Soc. Indust. Appl. Math.* Journal of the Society for Industrial and Applied Mathematics. (Philadelphia, Pa.) (Continued as: *SIAM J. Appl. Math.*)

*J. Soc. Indust. Appl. Math. Ser. A Control.* Journal of the Society for Industrial and Applied Mathematics. Series A: Control. (Philadelphia, Pa.) (Continued as: *SIAM J. Control*)

*J. Soc. Indust. Appl. Math. Ser. B Numer. Anal.* Journal of the Society for Industrial and Applied Mathematics. Series B. Numerical Analysis. (Philadelphia, Pa.) (Continued as: *SIAM J. Numer. Anal.*)

*J. Symbolic Logic.* The Journal of Symbolic Logic. (Providence, R.I.)

*J. Tsing Hua Univ.* Journal of Tsing Hua University. (Peking)

*J. Univ. Bombay.* Journal of the University of Bombay. (Bombay)

*J. Washington Acad. Sci.* Journal of the Washington Academy of Sciences. (Washington, D.C.)

*J. Zosen Kiokai.* Journal of Zosen Kiokai. Society of Naval Architects of Japan. (Tokyo)

*Jadernaja Fiz.* Akademija Nauk SSSR. Jadernaja Fizika. (Moscow) (Translated as: *Soviet J. Nuclear Phys.*)

*Janus.* Janus. Revue Internationale de l'Histoire des Sciences, de la Médecine, de la Pharmacie et de la Technique. (Leiden)

*Japan. J. Math.* Science Council of Japan. Japanese Journal of Mathematics. (Tokyo)

*Jaroslav. Gos. Ped. Inst. Dokl. Naučn. Konfer.* Jaroslavskij Gosudarstvennyj Pedagogičeskij Institut. Doklady na Naučnyh Konferencijah. (Yaroslavl)

*Jber. Deutsch. Math.-Verein.* Jahresbericht der Deutschen Mathematiker-Vereinigung. (Stuttgart)

*JETP Lett.* JETP Letters. (A translation of *JETP* [ЖЭТФ] *Pis'ma v Redakciju* of the Academy of Sciences of the USSR). (New York) (Translation of *ЖЭТФ Pis'ma*)

*Kabardino-Balkarsk. Gos. Univ. Učen. Zap. Ser. Fiz.-Mat.* Kabardino-Balkarskij Gosudarstvennyj Universitet. Učenye Zapiski. Serija Fiziko-Matematičeskaja. (Nalchik)

*Kalinin. Gos. Ped. Inst. Učen. Zap.* Kalininakij Gosudarstvennyj Pedagogičeskij Institut im. M. I. Kalinina. Učenye Zapiski. (Kalinin)

*Kalininograd. Gos. Ped. Inst. Učen. Zap.* Kaliningradskij Gosudarstvennyj Pedagogičeskij Institut. Učenye Zapiski. (Kalininograd)

*Kazan. Gos. Univ. Učen. Zap.* Kazanskij Ordona Trudovogo Kraznogo Znameni Gosudarstvennyj Universitet im. V. I. Ul'janova-Lenina. Učenye Zapiski. (Kazan)

*Keiei-Kagaku.* Keiei-Kagaku (Management Science). Japanese Operations Research Association. (Tokyo)

*Kemerov. Gos. Ped. Inst. Učen. Zap.* Kemerovskij Gosudarstvennyj Pedagogičeskij Institut. Učenye Zapiski. (Kemerovo)

*Kexue Tongbao.* Chinese Academy of Science. Kexue Tongbao (Science Bulletin). (Peking)

*Kexue Tongbao (Foreign Lang. Ed.).* Academia Sinica. Kexue Tongbao (Science Bulletin) (Foreign Language Edition). (Peking)

*Kibernetika (Kiev).* Oddeleñie Matematiki, Mehaniki i Kibernetiki Akademii Nauk Ukrainskoj SSR. Kibernetika. (Kiev) (Translated as: *Cybernetics*)

*Kirov. Gos. Ped. Inst. Učen. Zap.* Kirovskij Gosudarstvennyj Pedagogičeskij Institut imeni V. I. Lenina. Učenye Zapiski. (Yoshkar-Ola)

*Kišinev. Gos. Univ. Učen. Zap.* Ministerstvo Narodnogo Obrazovaniya Moldavskoj SSR. Kišinevskij Gosudarstvennyj Universitet. Učenye Zapiski. (Kishinev)

*Knižnice Odborn. Věd. Spisů Vysokého Učení Technického v Brně.* Knižnice Odborných a Vědeckých Spisů Vysokého Učení Technického v Brně. Vysoké Učení Technické v Brně. (Brno)

*Kódai Math. Sem. Rep.* Kódai Mathematical Seminar Reports. (Tokyo)

*Kolomen. Ped. Inst. Učen. Zap.* Ministerstvo Prosvětlenija RSFSR. Kolomenakij Pedagogičeskij Institut. Učenye Zapiski. (Kolomna)

*Kosmik. Issled.* Akademija Nauk SSSR. Kosmicheskie Issledovaniya. (Moscow) (Translated as: *Cosmic Research*)

*Köz. Mat. Lapok.* Középiskolai Matematikai Lapok. (Budapest)

*Kristallografsja.* Akademija Nauk SSSR. Kristallografsja. (Moscow) (Translated as: *Soviet Physics Cryst.*)

*Kubijev. Gos. Ped. Inst. Učen. Zap.* Ministerstvo Prosvětlenija RSFSR. Kubijevskij Gosudarstvennyj Pedagogičeskij Institut imeni V. V. Kubijeva. Učenye Zapiski. (Kubijev)

*Kumamoto J. Sci. Ser. A.* Kumamoto Journal of Science. Series A (Mathematics, Physics and Chemistry). (Kumamoto)

*Kungl. Svenska Vetenskapsakad. Handl.* Kungl. Svenska Vetenskapsakademien Handlingar. (Stockholm)

*Kungl. Tekn. Högsk. Handl. Stockholm.* Kungl. Tekniska Högskolans Handlingar. Transactions of the Royal Institute of Technology, Stockholm, Sweden. (Stockholm)

*Kybernetik (Berlin).* Kybernetik. (Berlin)

*Kybernetika (Prague).* Kybernetika. (Prague)

*Kyungpook Math. J.* Kyungpook National University. Kyungpook Mathematical Journal. (Taegu)

*Latvijas PSR Zinātņu Akad. Vēstis.* Latvijas PSR Zinātņu Akadēmijas Vēstis. Investīcija Akademijai Nauk Latvijas SSR. (Riga)

*Latvijas PSR Zinātņu Akad. Vēstis Fiz. Tehn. Zinātņu Ser.* Latvijas PSR Zinātņu Akadēmijas Vēstis. Fizikas un Tehnisko Zinātņu Serija. Investīcija Akademijai Nauk Latvijas SSR. Serija Fizītēskajām un Tekniskajām Naukām. (Riga)

*Latvijas Valsts Univ. Zinātn. Raksti.* PSRS Augstākās Izglītības Ministrija. Pētera Stučka Latvijas Valsts Universitāte. Zinātņu Raksti. Ministerstvo Vysokoškoliskās Izglītības. Latvijas Valsts Universitāte im. Pētra Stučka. Učenye Zapiski. (Riga)

*Leningrad. Gos. Ped. Inst. Učen. Zap.* Leningradskij Gosudarstvennyj Pedagogičeskij Institut im. A. I. Gercena. Učenye Zapiski. (Leningrad)

*Leningrad. Gos. Univ. Učen. Zap. Ser. Mat. Nauk.* Leningradskij Gosudarstvennyj Ordona Lenina Universitet imeni A. A. Ždanova. Učenye Zapiski. Serija Matematičeskikh Nauk. (Leningrad)

*Leningrad. Inž.-Ekonom. Inst. Trudy.* Leningradskij Inženierno-Ekonomičeskij Institut imeni Pal'miro Tol'jatti. Trudy. (Leningrad)

*Leningrad. Politehn. Inst. Trudy.* Ministerstvo Vysokoškoliskās Izglītības. Leningradskij Politehnicheskij Institut im. M. I. Kalinina. Trudy LPI. (Leningrad)

ABBREVIATIONS OF NAMES OF JOURNALS

*Litovsk. Fiz. Sb.* Lietuvos TSR Moksly Akademija. Lietuvos TSR Aukštiosios Mokyklos. Lietuvos Fizikos Rinkinys. Akademija Nauk Litovskoj SSR. Vyšie Školy Litovskoj SSR. Litovskij Fizikočeskij Sbornik. (Vilnius)

*Litovsk. Mat. Sb.* Lietuvos TSR Moksly Akademija. Lietuvos TSR Aukštiosios Mokyklos. Lietuvos Matematikos Rinkinys. Akademija Nauk Litovskoj SSR. Vyšie Učobnye Zavedenija Litovskoj SSR. Litovskij Matematikočeskij Sbornik. (Vilnius)

*Logique et Analyse.* Logique et Analyse. (Louvain)

*Lucrăr. Ști. Inst. Politehn. Brașov.* Ministerul Învățământului. Institutul Politehnic Brașov. Facultatea de Mecanică. Lucrărri Științifice. (Brașov)

*L'vov. Politehn. Inst. Naučn. Zap. Ser. Fiz.-Mat.* MVO USSR. L'vovskij Politehničeskij Institut. Naučnoe Zapiski. Serija Fiziko-Matematičeskaja. (L'vov)

*Madhya Bharati J. Univ. Saugar II A.* Madhya Bharati. Journal of the University of Saugar. Part II, Sec. A. (Saugar)

*Magnetohydrodynamics.* Magnetohydrodynamics. (A translation of *Magnitnaya Gidrodinamika* of the Academy of Sciences of the Latvian SSR). (New York) (Translation of *Magnit. Gidrodinamika*)

*Magnit. Gidrodinamika.* Akademija Nauk Latvijskoj SSR. Magnitnaja Gidrodinamika. (Riga) (Translated as: *Magnetohydrodynamics*)

*Magyar Tud. Akad. Mat. Fiz. Oszt. Közl.* A Magyar Tudományos Akadémia Matematikai és Fizikai Tudományok Osztályának Közleményei. (Budapest)

*Magyar Tud. Akad. Mat. Kutató Int. Közl.* A Magyar Tudományos Akadémia Matematikai Kutató Intézetének Közleményei. (Budapest) (Continued as: *Studia Sci. Math. Hungar.*)

*Management Sci.* Management Science. Journal of the Institute of Management Science. (Philadelphia, Pa.)

*Manchester Lit. Philos. Soc. Mem. Proc.* Manchester Literary and Philosophical Society. Memoirs and Proceedings. (Manchester)

*Mari. Gos. Ped. Inst. Učen. Zap.* Marijskij Gosudarstvennyj Pedagočeskij Institut. Učenye Zapiski. (Yoshkar-Ola)

*Mat. Časopis Sloven.* Akad. Vied. Matematický Časopis Slovenskej Akadémie Vied. (Bratislava) (Formerly: *Mat.-Fyz. Časopis Sloven.* Akad. Vied)

*Mat.-Fys. Medd. Danske Vid. Selsk.* Matematikafysiske Meddelelser udgivet af Det Kongelige Danske Videnskabernes Selskab. (Copenhagen)

*Mat.-Fys. Skr. Dansks Vid. Selsk.* Matematikafysiske Skrifter udgivet af Det Kongelige Danske Videnskabernes Selskab. (Copenhagen)

*Mat.-Fyz. Časopis Sloven.* Akad. Vied. Matematicko-Fyzikálny Časopis. Slovenská Akadémia Vied. (Bratislava) (Continued as: *Mat. Časopis Sloven. Akad. Vied and Fyz. Časopis Sloven. Akad. Vied*)

*Mat. Issled.* Akademija Nauk Moldavskoj SSR. Institut Matematiki s Vyčislitel'nym Centrom. Matematičeskie Issledovaniya. (Kishinev)

*Mat. Lopok.* Matematikai Lapok. Bolyai János Matematikai Társulat. (Budapest)

*Mat. Sb.* Matematičeskij Sbornik. Novaja Serija. (Moscow)

*Mat. Vesnik.* Družstvo Matematičara, Fizičara i Astronoma SRS i Matematički Institut-Beograd. Matematički Vesnik. Nova Serija. (Belgrade)

*Mat. Zametki.* Akademija Nauk Sojuza SSR. Matematičeskie Zametki. (Moscow)

*Matematiche (Catania).* Le Matematiche. (Catania)

*Math. Ann.* Mathematische Annalen. (Berlin-Göttingen-Heidelberg)

*Math. Biosci.* Mathematical Biosciences: An International Journal. (New York)

*Math. Centrum Amsterdam Afd. Zuivere Wisk.* Mathematisch Centrum Amsterdam. Afdeling Zuivere Wiskunde. (Amsterdam)

*Math. Centrum Amsterdam Rekenafdeling.* Mathematisch Centrum Amsterdam. Rekenafdeling. (Amsterdam)

*Math. Comp.* Mathematics of Computation. (Washington, D.C.)

*Math. Gaz.* The Mathematical Gazette. (London)

*Math. J. Okayama Univ.* Mathematical Journal of Okayama University. (Okayama)

*Math. Japon.* Mathematica Japonicae. (Kobe)

*Math. Mag.* Mathematics Magazine. (Buffalo, N.Y.)

*Math. Nachr.* Mathematische Nachrichten. (Berlin)

*Math. Naturwiss. Unterricht.* Der mathematische und naturwissenschaftliche Unterricht. (Bonn)

*Math. Notae.* Mathematicae Notae. Boletin del Instituto de Matemática. (Rosario)

*Math.-Phys. Semesterber.* Mathematisch-Physikalische Semesterberichte. (Göttingen)

*Math. Reviews.* Mathematical Reviews. (Providence, R.I.) (Usually abbreviated as *MR* in the text of *Math. Reviews*)

*Math. Scand.* Mathematica Scandinavica. (Copenhagen)

*Math. Sci. Humaines.* Centre de Mathématique Sociale et de Statistique EPHE. Mathématiques et Sciences Humaines. (Paris)

*Math. Student.* The Mathematics Student. (Madras)

*Math. Systems Theory.* Mathematical Systems Theory. (New York)

*Math.-Tsch.-Wirtschaft.* Mathematik-Technik-Wirtschaft. Zeitschrift für moderne Rechentechnik und Automation. (Vienna)

*Math. und Wirtschaft.* Mathematik und Wirtschaft. (Berlin)

*Math. Z.* Mathematische Zeitschrift. (Berlin-Göttingen-Heidelberg)

*Mathematica (Cluj).* Societatea de Științe Matematice și Fizice din R.P.R. Filiala Cluj. Mathematica. (Cluj)

*Mathematika.* Mathematika. A Journal of Pure and Applied Mathematics. (London)

*Mathematikunterricht.* Der Mathematikunterricht. Beiträge zu seiner wissenschaftlichen und methodischen Gestaltung. (Stuttgart)

*Mathesis.* Mathesis. Recueil Mathématique à l'Usage des Écoles Spéciales et des Établissements d'Instruction Moyenne. (Mons)

*Matrix Tensor Quart.* The Tensor Club of Great Britain. The Matrix and Tensor Quarterly. (London)

*Mech. Teoret. Stos.* Polskie Towarzystwo Mechaniki Teoretycznej i Stosowanej. Mechanika Teoretyczna i Stosowana. (Warsaw)

*Medd. Lunds Astronom. Obs. Ser. I.* Meddelanden från Lunds Astronomiska Observatorium. Series I. (Lund)

*Medd. Lunds Astronom. Obs. Ser. II.* Meddelanden från Lunds Astronomiska Observatorium. Series II. (Lund)

*Medd. Lunds Univ. Mat. Sem.* Meddelanden från Lunds Universitets Matematiska Seminarium. Communications du Séminaire Mathématique de l'Université de Lund. (Lund)

*Melekess. Gos. Ped. Inst. Učen. Zap.* Melekesskij Gosudarstvennyj Pedagočeskij Institut. Učenye Zapiski. (Melekess)

*Mem. Amer. Math. Soc.* Memoirs of the American Mathematical Society. (Providence, R.I.)

*Mem. Defensa Acad.* Memoirs of the Defense Academy (Mathematics, Physics, Chemistry and Engineering) (Yokosuka)

*Mem. Fac. Ci. Univ. Habana Ser. Mat.* Memorias de la Facultad de Ciencias. Universidad de la Habana. Serie Matemática. (Havana)

*Mem. Fac. Ed. Kumamoto Univ. Sect. 1.* Memoirs of the Faculty of Education. Kumamoto University. Section 1. (Natural Science). (Kumamoto)

*Mem. Fac. Engrg. Hiroshima Univ.* Memoirs of the Faculty of Engineering. Hiroshima University. (Hiroshima)

*Mem. Fac. Engrg. Miyazaki Univ.* Memoirs of the Faculty of Engineering, Miyazaki University. (Miyazaki)

*Mem. Fac. Sci. Kyushu Univ. Ser. A.* Memoirs of the Faculty of Science. Kyushu University. Series A. Mathematics. (Fukuoka)

*Mem. Ist. Lombardo Accad. Sci. Lett. Cl. Sci. Mat. Natur.* Memorie dell'Istituto Lombardo. Accademia di Scienze e Lettere. Classe di Scienze Matematiche e Naturali. (Milan)

ABBREVIATIONS OF NAMES OF JOURNALS

*Mem. Kitami Coll. Tech.* Memoirs of the Kitami College of Technology. (Kitami) (Continued as: *Mem. Kitami Inst. Tech.*)

*Mem. Kitami Inst. Tech.* Memoirs of the Kitami Institute of Technology. (Kitami) (Formerly: *Mem. Kitami Coll. Tech.*)

*Mem. Mat. Inst. "Jorge Juan".* Consejo Superior de Investigaciones Científicas. Memorias de Matemática del Instituto "Jorge Juan". (Madrid)

*Mem. Muroran Inst. Tech.* Memoirs of the Muroran Institute of Technology. (Muroran)

*Mem. Osaka Univ. Lib. Arts Ed. Ser. B.* Memoirs of the Osaka University of the Liberal Arts and Education. Series B. Natural Science. (Osaka)

*Mem. Real Acad. Ci. Art. Barcelona.* Memorias de la Real Academia de Ciencias y Artes de Barcelona. (Barcelona)

*Mem. Real Acad. Ci. Exact. Fis. Natur. Madrid.* Memorias de la Real Academia de Ciencias Exactas, Fisicas y Naturales de Madrid. Serie de Ciencias Exactas. (Madrid)

*Mem. Roy. Astronom. Soc.* Memoirs of the Royal Astronomical Society. (London)

*Mem. School Sci. Engrg. Waseda Univ. Tokyo.* Memoirs of the School of Science and Engineering. Waseda University, Tokyo. (Tokyo)

*Mem. Soc. Astronom. Ital.* Memorie della Società Astronomica Italiana. (Milan)

*Mém. Soc. Roy. Sci. Liège Coll. in-4°.* Mémoires de la Société Royale des Sciences de Liège. Collection in-4°. (Liège)

*Mém. Soc. Roy. Sci. Liège Coll. in-8°.* Mémoires de la Société Royale des Sciences de Liège. Collection in-8°. (Liège)

*Mémor. Sci. Math.* Mémorial des Sciences Mathématiques. (Paris)

*Mémor. Sci. Phys.* Mémorial des Sciences Physiques. (Paris)

*Météorol.* La Météorologie. (Paris)

*Metody Vyšisl.* Leningradskil Ordena Lenina Gosudarstvennyi Universitet imeni A. A. Ždanova. Kafedra Vyšislitel'noi Matematiki i Vychislitel'nyi Centr. Metody Vyšisenii. (Leningrad)

*Metrika.* Metrika. (Würzburg)

*Metrocon.* Metroeconomica. Rivista Internazionale di Economica. (Bologna)

*Metron.* Metron. (Rome)

*Michigan Math. J.* The Michigan Mathematical Journal. (Ann Arbor, Mich.)

*Min. Proc. Roy. Irish Acad.* Minutes of Proceedings. Royal Irish Academy. (Dublin)

*Mind.* Mind. A Quarterly Review of Psychology and Philosophy. (London)

*Mitt. Inst. Angew. Math. Zürich.* Mitteilungen aus dem Institut für angewandte Mathematik an der Eidgenössischen Technischen Hochschule in Zürich. (Zürich)

*Mitt. Inst. Theoret. Phys. Geophys. Bergakad. Freiberg.* Mitteilungen aus dem Institut für Theoretische Physik und Geophysik der Bergakademie Freiberg. (Freiberg)

*Mitt. Math. Gesellsch. Hamburg.* Mitteilungen der mathematischen Gesellschaft in Hamburg. (Hamburg)

*Mitt. Math. Sem. Giessen.* Mitteilungen aus dem Mathematischen Seminar Giessen. (Giessen)

*Mitt. Max-Planck-Inst. Strömungsforsch.* Mitteilungen aus dem Max-Planck-Institut für Strömungsforschung. (Göttingen)

*Mitt. Naturforsch. Ges. Bern.* Mitteilungen der Naturforschenden Gesellschaft Bern. (Bern)

*Mitt. Verein. Schweiz. Versich.-Math.* Mitteilungen der Vereinigung Schweizerischer Versicherungsmathematiker. Bulletin de l'Association des Actuaires Suisses. (Bern)

*Molecular Phys.* Molecular Physics. (London)

*Monatsh. Deutsch. Akad. Wiss. Berlin.* Monatsberichte der Deutschen Akademie der Wissenschaften zu Berlin. (Berlin)

*Monatsh. Math.* Monatshäfte für Mathematik. (Vienna)

*Monthly Notices Roy. Astronom. Soc.* Monthly Notices of the Royal Astronomical Society. (London)

*Moscow Univ. Bull. Ser. III Phys. Astronom.* Moscow University. Moscow University Bulletin. Series III. Physics and Astronomy. (Acton, Mass.) (Translation of *Vestnik Moskov. Univ. Ser. III Fiz. Astronom.*)

*Moskov. Gos. Ped. Inst. Učen. Zap.* Moskovskii Gosudarstvennyi Pedagogicheskii Institut im. V. I. Lenina. Učenye Zapiski. (Moscow)

*Moskov. Gos. Univ. Soobšč. Gos. Astronom. Inst. Šternberg.* Moskovskii Gosudarstvennyi Universitet im. M. V. Lomonosova. Soobščenija Gosudarstvennogo Astronomicheskogo Instituta im. P. K. Šternberga. (Moscow)

*Moskov. Gos. Univ. Trudy Gos. Astronom. Inst. Šternberg.* Moskovskii Gosudarstvennyi Universitet im. M. V. Lomonosova. Trudy Gosudarstvennogo Astronomicheskogo Instituta im. P. K. Šternberga. (Moscow)

*Moskov. Gos. Univ. Voprosy Mekh.* Moskovskii Gosudarstvennyi Universitet. Voprosy Mekhaniki. (Moscow)

*Moskov. Inst. Inž. Železnodorozh. Transporta Trudy.* Moskovskii Institut Inženierov Železnodorozhnoho Transporta. Trudy. (Moscow)

*Moskov. Oblast. Ped. Inst. Učen. Zap.* Moskovskii Oblastnoi Pedagogicheskii Institut. Učenye Zapiski. (Moscow)

*M.R.* Mathematical Reviews. (Providence, R.I.)

*Nachr. Akad. Wiss. Göttingen Math. Phys. Kl. II.* Nachrichten der Akademie der Wissenschaften in Göttingen. II. Mathematisch-Physikalische Klasse. (Göttingen)

*Nagoya Math. J.* Nagoya Mathematical Journal. (Nagoya)

*Nat. Bur. Standards Appl. Math. Ser.* National Bureau of Standards. Applied Mathematics Series. (Washington, D.C.)

*Nat. Lucht- en Ruimtevaarlab. Amsterdam Rep.* Nationaal Lucht- en Ruimtevaarlabatorium. National Aero- and Astronautical Research Institute Amsterdam. Report. (Amsterdam)

*Natur. Sci. Rep. Ochanomizu Univ.* Natural Science Report of the Ochanomizu University. (Tokyo)

*Naturwissenschaften.* Die Naturwissenschaften. (Berlin-Göttingen-Heidelberg)

*Naval Res. Logist. Quart.* Naval Research Logistics Quarterly. (Washington, D.C.)

*Navigation.* Navigation. Journal of the Institute of Navigation. (Los Angeles, Calif.)

*Nederl. Akad. Wetensch. Indag. Math.* Koninklijke Nederlandse Akademie van Wetenschappen. Indagationes Mathematicae ex Actis Quibus Titulus. Proceedings of the Section of Sciences. (Amsterdam) (Same as: *Nederl. Akad. Wetensch. Proc. Ser. A*)

*Nederl. Akad. Wetensch. Proc. Ser. A.* Koninklijke Nederlandse Akademie van Wetenschappen. Proceedings. Series A. Mathematical Sciences. (Amsterdam) (Same as: *Nederl. Akad. Wetensch. Indag. Math.*)

*Nederl. Akad. Wetensch. Proc. Ser. B.* Koninklijke Nederlandse Akademie van Wetenschappen. Proceedings. Series B. Physical Sciences. (Amsterdam)

*Nederl. Akad. Wetensch. Verslag Afd. Natuurk.* Koninklijke Nederlandse Akademie van Wetenschappen. Verslag van de Gewone Vergadering van de Afdeling Natuurkunde. (Amsterdam)

*Nederl. Tijdschr. Natuurk.* Nederlands Tijdschrift voor Natuurkunde. (Utrecht)

*New Zealand J. Sci.* New Zealand Journal of Science. (Wellington)

*Nieuw Arch. Wisk.* Nieuw Archief voor Wiskunde. (Groningen)

*Nieuw Tijdschr. Wisk.* Nieuw Tijdschrift voor Wiskunde. (Groningen-Djakarta)

*Nigerian J. Sci.* University of Ibadan. Nigerian Journal of Science. (Ibadan)

*Nordisk Mat. Tidsskr.* Nordisk Matematisk Tidsskrift. (Oslo)

*Nordisk Tidsskr. Informations-Behandling.* Nordisk Tidsskrift for Informations-Behandling. (Copenhagen)

ABBREVIATIONS OF NAMES OF JOURNALS

*Norske Vid. Selsk. Forh. (Trondheim).* Det Kongelige Norske Videnskabers Selskabs Forhandlinger. (Trondheim)

*Norske Vid. Selsk. Skr. (Trondheim).* Det Kongelige Norske Videnskabers Selskabs Skrifter. (Trondheim)

*Notas Mat.* Notas de Matemática. (Rio de Janeiro)

*Notices Amer. Math. Soc.* Notices of the American Mathematical Society. (Providence, R.I.)

*Notre Dame J. Formal Logic.* Notre Dame Journal of Formal Logic. (Notre Dame, Ind.)

*Nova Acta Soc. Sci. Upsal.* Nova Acta Regiae Societatis Scientiarum Upsaliensis. (Uppsala)

*Nuclear Fusion.* Nuclear Fusion. (Vienna)

*Nuclear Phys.* Nuclear Physics. (Amsterdam)

*Numer. Math.* Numerische Mathematik. (Berlin-Göttingen-Heidelberg)

*Nuovo Cimento A.* Il Nuovo Cimento A. (Bologna)

*Nuovo Cimento B.* Il Nuovo Cimento B. (Bologna)

*Nuovo Cimento Suppl.* Supplemento al Nuovo Cimento. (Bologna)

*O.N.E.R.A. Publ.* Office National d'Études et de Recherches Aéronautiques. Publication. (Paris)

*Observatory.* The Observatory. A Review of Astronomy. (Hailsham)

*Obzornik Mat. Fiz.* Društvo Matematikov, Fizikov in Astronomov SRS. Obzornik za Matematiko in Fiziko. (Ljubljana)

*Odessa Gos. Univ. Naučn. Ezhegodnik.* Ministerstvo Vysšego i Srednego Special'nogo Obrazovanija USSR. Odesskij Gosudarstvennyj Universitet. Naučnyj Ezhegodnik. (Odessa)

*Operations Res.* Operations Research. The Journal of the Operations Research Society of America. (Baltimore, Md.) (Sometimes abbreviated as *OR* in *Math. Reviews*)

*Optica Acta.* Optica Acta. (London)

*Optimal. Planirovanie.* Optimal'noe Planirovanie. Akademija Nauk SSSR. Sibirskoe Otdelenie. Institut Matematiki. (Novosibirsk)

*Orehovo-Zuev. Ped. Inst. Učen. Zap. Kaf. Mat.* Ministerstvo Prosvětlenija RSFSR. Orehovo-Zujskij Pedagogičeskij Institut. Učenye Zapiski Kafedry Matematiki. (Moscow)

*Orlov. Gos. Ped. Inst. Učen. Zap.* Orlovskij Gosudarstvennyj Pedagogičeskij Institut. Učenye Zapiski. (Orlov)

*Osaka J. Math.* Osaka Journal of Mathematics. (Osaka)

*Österreich. Akad. Wiss. Math.-Natur. Kl. S.-B. II.* Österreichische Akademie der Wissenschaften. Mathematisch-Naturwissenschaftliche Klasse. Sitzungsberichte. Abteilung II. Mathematik, Astronomie, Physik, Meteorologie und Technik. (Vienna)

*P.A.* Science Abstracts. Physics Abstracts. (London)

*Pacific J. Math.* Pacific Journal of Mathematics. (Berkeley, Calif.)

*Papers and Proc. Roy. Soc. Tasmania.* Papers and Proceedings of the Royal Society of Tasmania. (Hobart)

*Penz. Politehn. Inst. Učen. Zap. Mat. Meh.* Penzenskij Politehničeskij Institut. Matematika i Mechanika. Učenye Zapiski. (Penza)

*Period. Mat.* Periodico di Matematiche. (Bologna)

*Perm. Gos. Univ. Učen. Zap.* Permskij Gosudarstvennyj Universitet imeni A. M. Gor'kogo. Učenye Zapiski. (Perm)

*Perm. Politehn. Inst. Sb. Naučn. Trud.* Permjakij Politehničeskij Institut. Sbornik Naučnyh Trudov. (Perm)

*Philos. Mag.* The Philosophical Magazine. A Journal of Theoretical, Experimental and Applied Science. (London)

*Philos. Rev.* The Philosophical Review. (Ithaca, N.Y.)

*Philos. Sci.* Philosophy of Science. (Baltimore, Md.)

*Philos. Trans. Roy. Soc. London Ser. A.* Philosophical Transactions of the Royal Society of London. Series A. Mathematical and Physical Sciences. (London)

*Phys. Fluids.* The Physics of Fluids. (New York)

*Phys. Lett.* Physics Letters. (Amsterdam)

*Phys. Norveg.* Physica Norvegica. (Oslo)

*Phys. Rev.* The Physical Review. (New York)

*Phys. Rev. Lett.* Physical Review Letters. (New York)

*Physica.* Physica. (Amsterdam)

*Physics.* Physics. Physique. Fizika. (Long Island, N.Y.)

*Physics Abstracts.* Science Abstracts. Physics Abstracts. (London) (Usually abbreviated *PA* in the text of *Math. Reviews*)

*Pokroky Mat. Fyz. Astronom.* Jednota Československých Matematiků a Fyziku. Pokroky Matematiky, Fyziky a Astronomie. (Prague)

*Polska Biblio. Analit. Mech.* Polska Akademia Nauk. Instytut Podstawowych Problemów Techniki. Polska Bibliografia Analityczna. Mechanika. Polish Scientific Abstracts. Mechanics. (Warsaw)

*Portugal. Math.* Portugaliae Mathematica. (Lisbon)

*Portugal. Phys.* Portugaliae Physica. (Lisbon)

*Postępy Astronom.* Polskie Towarzystwo Astronomiczne. Postępy Astronomii. (Warsaw)

*Postępy Fiz.* Polakie Towarzystwo Fizyczne. Postępy Fizyki. (Warsaw)

*Prace Mat.* Roczniki Polskiego Towarzystwa Matematycznego. Seria I. Prace Matematyczne. (Warsaw)

*Prakt. Akad. Athēnōn.* Πρακτικά τῆς Ἀκαδημίας Ἀθηνῶν. (Athens)

*Približ. Metod. Rešen. Differencial'. Uravnen.* Približennye Metody Rešenija Differencial'nyh Uravnenij. (Kiev)

*Prikl. Mat. Meh.* Akademija Nauk SSSR. Otdelenie Tehničeskikh Nauk. Institut Mehaniki. Prikladnaja Matematika i Mehanika. (Moscow) (Translated as: *J. Appl. Math. Mech.*)

*Prikladna. Meh.* Akademija Nauk Ukrainskoj SSR. Otdelenie Matematiki, Mehaniki i Kibernetiki. Prikladnaja Mehanika. (Kiev) (Translated as: *Soviet Appl. Mech.*)

*Primenen. Mat. Ėkonom.* Leningradskij Ordena Lenina Gosudarstvennyj Universitet imeni A. A. Ždanova. Kafedra i Laboratoriya Ėkonomiko-Matematičeskikh Metodov. Primenenie Matematiki v Ėkonomike. (Leningrad)

*Probleme der Kybernetik.* Probleme der Kybernetik. (Berlin) (Translation of *Problemy Kibernet.*)

*Problems of Information Transmission.* Problems of Information Transmission. (New York) (Translation of *Problemy Peredati Informacij*)

*Problemy Kibernet.* Problemy Kibernetiki. (Moscow)

*Problemy Peredati Informacij.* Akademija Nauk SSSR. Institut Problem Peredati Informacij Akademii Nauk SSSR. Problemy Peredati Informacij. (Moscow) (Translated as: *Problems of Information Transmission*)

*Proc. Amer. Math. Soc.* Proceedings of the American Mathematical Society. (Providence, R.I.)

*Proc. Cambridge Philos. Soc.* Proceedings of the Cambridge Philosophical Society. (Cambridge, England)

*Proc. Edinburgh Math. Soc.* Proceedings of the Edinburgh Mathematical Society. (Edinburgh) (Contains *Proc. Edinburgh Math. Soc. Edinburgh Math. Notes*)

ABBREVIATIONS OF NAMES OF JOURNALS

*Proc. Edinburgh Math. Soc. Edinburgh Math. Notes.* Proceedings of the Edinburgh Mathematical Society. Edinburgh Mathematical Notes. (Edinburgh) (Included in *Proc. Edinburgh Math. Soc.*)

*Proc. Egyptian Acad. Sci.* Proceedings of the Egyptian Academy of Sciences. (Cairo)

*Proc. Fac. Engrg. Keio Univ.* Proceedings of the Fujihara Memorial Faculty of Engineering. Keio University. (Tokyo)

*Proc. Glasgow Math. Assoc.* Proceedings of the Glasgow Mathematical Association. (Glasgow) (Continued as: *Glasgow Math. J.*)

*Proc. IEEE.* Proceedings of the IEEE. (New York)

*Proc. Indian Acad. Sci. Sect. A.* Proceedings of the Indian Academy of Sciences. Section A. (Bangalore)

*Proc. Indiana Acad. Sci.* Proceedings of the Indiana Academy of Science. (Indianapolis, Ind.)

*Proc. Inst. Elec. Engrs.* Proceedings of the Institution of Electrical Engineers. Electronics. Power. Science & General. (London)

*Proc. Inst. Mech. Engrs. Part I.* Proceedings of the Institution of Mechanical Engineers. Part I. (London)

*Proc. Inst. Statist. Math.* The Proceedings of the Institute of Statistical Mathematics. (Tokyo)

*Proc. Japan Acad.* Proceedings of the Japan Academy. (Tokyo)

*Proc. London Math. Soc.* Proceedings of the London Mathematical Society. (London)

*Proc. Math. Phys. Soc. U.A.R. (Egypt).* Proceedings of the Mathematical and Physical Society of U.A.R. (Egypt). (Cairo)

*Proc. Nat. Acad. Sci. India Sect. A.* Proceedings of the National Academy of Sciences, India. Section—A. (Allahabad)

*Proc. Nat. Acad. Sci. U.S.A.* Proceedings of the National Academy of Sciences of the United States of America. (Washington, D.C.)

*Proc. Nat. Inst. Sci. India Part A.* Proceedings of the National Institute of Sciences of India. Part A. Physical Sciences. (New Delhi)

*Proc. Pakistan Statist. Assoc.* Proceedings of the Pakistan Statistical Association. (Lahore)

*Proc. Phys. Soc.* Proceedings of the Physical Society. (London)

*Proc. Rajasthan Acad. Sci.* The Proceedings of the Rajasthan Academy of Sciences. (Pilani)

*Proc. Roy. Irish Acad. Sect. A.* Proceedings of the Royal Irish Academy. Section A. (Dublin)

*Proc. Roy. Soc. Edinburgh Sect. A.* Proceedings of the Royal Society of Edinburgh. Section A. (Mathematical and Physical Sciences). (Edinburgh)

*Proc. Roy. Soc. New Zealand.* Proceedings of the Royal Society of New Zealand. (Wellington)

*Proc. Roy. Soc. Ser. A.* Proceedings of the Royal Society. Series A. Mathematical and Physical Sciences. (London)

*Proc. Roy. Soc. Victoria.* Proceedings of the Royal Society of Victoria. New Series. (Melbourne)

*Proc. Steklov Inst. Math.* Proceedings of the Steklov Institute of Mathematics. (Providence, R.I.) (Translation of *Trudy Mat. Inst. Steklov.*)

*Proc. Vibration Problems.* Polish Academy of Sciences. Institute of Basic Technical Problems. Proceedings of Vibration Problems. (Warsaw)

*Progr. Math.* See *Shuzus Jinshan.*

*Progr. Math. (Allahabad).* Academy for Progress of Mathematics of the University of Allahabad. Progress of Mathematics. (Allahabad)

*Progr. Theoret. Phys.* Progress of Theoretical Physics. (Kyoto)

*Przegląd Statyst.* Sekcja Statystyki Polskiego Towarzystwa Ekonomicznego. Przegląd Statystyczny. (Warsaw)

*Pskov. Ped. Inst. Fiz.-Mat. Fak. Učen. Zap.* Ministerstvo Prosvětjenija RSFSR. Pakovskij Pedagogičeskij Institut. Fiziko-Matematičeskij Fakul'tet. Učenye Zapiski. (Pskov)

*Psychometrika.* Psychometrika. A Journal Devoted to the Development of Psychology as a Quantitative Rational Science. (Chapel Hill, N.C.)

*Publ. Astronom. Soc. Pacific.* Publications of the Astronomical Society of the Pacific. (San Francisco, Calif.)

*Publ. Dép. Math. (Lyon).* Publications du Département de Mathématiques. Faculté des Sciences de Lyon. (Lyon)

*Publ. Dept. Math. (Ljubljana).* University of Ljubljana. Institute of Mathematics, Physics and Mechanics. Publications of the Department of Mathematics. (Ljubljana)

*Publ. Inst. Math. (Beograd).* Institut Mathématique. Publications de l'Institut Mathématique. Nouvelle Série. (Belgrade)

*Publ. Inst. Statist. Univ. Paris.* Publications de l'Institut de Statistique de l'Université de Paris. (Paris)

*Publ. Math. Debrecen.* Publicationes Mathematicae. (Debrecen)

*Publ. Res. Inst. Math. Sci. Ser. A.* Publications of the Research Institute for Mathematical Sciences. Series A. (Kyoto)

*Publ. Sci. Tech. Ministère de l'Air (Paris).* Publications Scientifiques et Techniques du Ministère de l'Air. (Paris)

*Publ. Sci. Tech. Ministère de l'Air (Paris) Notes Tech.* Publications Scientifiques et Techniques du Ministère de l'Air. Notes Techniques. (Paris)

*Publ. Sém. Géom. Univ. Neuchâtel.* Publications du Séminaire de Géométrie de l'Université de Neuchâtel. (Neuchâtel)

*Quart. Appl. Math.* Quarterly of Applied Mathematics. (Providence, R.I.)

*Quart. J. Math. Oxford Ser.* The Quarterly Journal of Mathematics, Oxford Second Series. (Oxford)

*Quart. J. Mech. Appl. Math.* The Quarterly Journal of Mechanics and Applied Mathematics. (Oxford)

*Quart. J. Roy. Astronom. Soc.* The Quarterly Journal of the Royal Astronomical Society. (London)

*Quart. Rev. Sci. Publ.* Polish Academy of Sciences. Distribution Centre for Scientific Publications. Quarterly Review of Scientific Publications. (Warsaw)

*RAAG Newsletter.* RAAG Newsletter. (Tokyo)

*RAAG Res. Notes.* RAAG Research Notes. (Tokyo)

*Rad Jugosl. Akad. Znan. Umjet.* Rad Jugoslavenske Akademije Znanosti i Umjetnosti. (Zagreb)

*Radio Engrg. Electron. Phys.* Radio Engineering and Electronic Physics. (Translation of *Radiotekhnika i Elektronika*, a U.S.S.R. Academy of Sciences Publication). (New York) (Translation of *Radiotekhnika i Elektronika*.)

*Radio Sci.* Radio Science. (Washington, D.C.)

*Radiotekhn. (Har'kov).* Har'kovskij Ordena Trudovogo Krasnogo Znameni Gosudarstvennyi Universitet imeni A. M. Gor'kogo. Radiotekhnika. (Kharkov)

*Radiotekhn. i Elektron.* Akademija Nauk SSSR. Radiotekhnika i Elektronika. (Moscow) (Translated as: *Radio Engrg. Electron. Phys.*)

*Ratio.* Ratio. (Oxford)

*RCA Rev.* RCA Review. (New York)

*Recherche Aérospat.* La Recherche Aérospatiale. (Paris)

*Rend. Accad. Sci. Fis.-Mat. Napoli.* Società Nazionale di Napoli. Rendiconto dell'Accademia delle Scienze Fisiche e Matematiche. (Naples)

*Rend. Circ. Mat. Palermo.* Rendiconti del Circolo Matematico di Palermo. (Palermo)

*Rend. Mat. e Appl.* Università di Roma. Istituto Nazionale di Alta Matematica. Rendiconti di Matematica e delle sue Applicazioni. (Rome)

*Rend. Sem. Fac. Sci. Univ. Cagliari.* Rendiconti del Seminario della Facoltà di Scienze della Università di Cagliari. (Cagliari)

ABBREVIATIONS OF NAMES OF JOURNALS

*Rend. Sem. Mat. Fis. Milano.* Rendiconti del Seminario Matematico e Fisico di Milano. (Milan)

*Rend. Sem. Mat. Univ. Padova.* Rendiconti del Seminario Matematico dell'Università di Padova. (Padua)

*Rep. Fac. Sci. Shizuoka Univ.* Shizuoka University. Faculty of Science. Reports of the Faculty of Science. Shizuoka University. (Shizuoka) (Formerly: *Rep. Lib. Arts Sci. Fac. Shizuoka Univ. Sect. Natur. Sci.*)

*Rep. Inst. Sci. Tech. Univ. Tokyo.* The Reports of the Institute of Science and Technology, University of Tokyo. (Tokyo)

*Rep. Lib. Arts Sci. Fac. Shizuoka Univ. Sect. Natur. Sci.* Reports of Liberal Arts and Science Faculty. Shizuoka University. Section Natural Science. (Shizuoka) (Continued as: *Rep. Fac. Sci. Shizuoka Univ.*)

*Rep. Res. Inst. Appl. Mech. Kyushu Univ.* Reports of Research Institute for Applied Mechanics. Kyushu University. (Fukuoka)

*Rep. Res. Inst. Strength and Fracture of Materials.* Tohoku Univ. Reports of the Research Institute for Strength and Fracture of Materials. Tohoku University. (Sendai)

*Rep. Statist. Appl. Res. Un. Japan. Sci. Engrs.* Reports of Statistical Application Research, Union of Japanese Scientists and Engineers. (Tokyo)

*Repb. Venezuela Bol. Acad. Ci. Fis. Mat. Natur.* República de Venezuela. Boletín de la Academia de Ciencias Físicas, Matemáticas y Naturales. (Caracas)

*Res. Bull. Panjab Univ.* Research Bulletin of the Panjab University. (Hoshiarpur)

*Res. Bull. Regional Engrg. College Warangal.* Research Bulletin. Regional Engineering College. Warangal. (Andhra Pradesh)

*Res. Rep. Nagaoka Tech. College.* Research Reports of the Nagaoka Technical College. (Nagaoka)

*Rev. Acad. Ci. Madrid.* Revista de la Real Academia de Ciencias Exactas, Físicas y Naturales de Madrid. (Madrid)

*Rev. Acad. Ci. Zaragoza.* Revista de la Academia de Ciencias Exactas, Físico-Químicas y Naturales de Zaragoza. (Zaragoza)

*Rev. Acad. Colombiana Ci. Exact. Fis. Natur.* Revista de la Academia Colombiana de Ciencias Exactas, Físicas y Naturales. (Bogotá)

*Rev. CETHEDEC.* Revue du Centre d'Études Théoriques de la Détection et des Communications. (Paris)

*Rev. Ci. (Lima).* Revista de Ciencias. (Lima)

*Rev. Fac. Ci. Univ. Coimbra.* Revista de Faculdade de Ciências da Universidade de Coimbra. (Coimbra)

*Rev. Française Traitement Information Chiffres.* Revue Française de Traitement de l'Information. Chiffres. (Paris)

*Rev. Gén. Sci. Pures Appl.* Revue Générale des Sciences Pures et Appliquées et Bulletin de l'Association Française pour l'Avancement des Sciences. (Paris)

*Rev. Histoire Sci. Appl.* Revue d'Histoire des Sciences et de leurs Applications. (Paris)

*Rev. Inst. Internat. Statist.* Revue de l'Institut International de Statistique. Review of the International Statistical Institute. (The Hague)

*Rev. Mat. Elem.* Revista de Matemáticas Elementales. (Bogotá)

*Rev. Mat. Hisp.-Amer.* Revista Matemática Hispano-Americana. (Madrid)

*Rev. Mexicana Fis.* Revista Mexicana de Física. (Mexico City)

*Rev. Modern Phys.* Reviews of Modern Physics. (New York)

*Rev. Optique.* Revue d'Optique Théorique et Instrumentale. (Paris)

*Rev. Roumaine Math. Pures Appl.* Académie de la République Populaire Roumaine. Revue Roumaine de Mathématiques Pures et Appliquées. (Bucharest)

*Rev. Roumaine Phys.* Revue Roumaine de Physique. (Bucharest)

*Rev. Roumaine Sci. Tech. Sér. Méc. Appl.* Revue Roumaine des Sciences Techniques. Série de Mécanique Appliquée. (Bucharest)

*Rev. Un. Mat. Argentina.* Revista de la Unión Matemática Argentina. (Buenos Aires)

*Rice Univ. Studies.* Rice University Studies. (Houston, Tex.)

*Ricerca (Napoli).* La Ricerca. Rivista di Matematiche Pure ed Applicate. (Naples)

*Ricerche Mat.* Ricerche di Matematica. (Naples)

*Rīgas Politehn. Inst. Zinātī. Raksti.* Rīgas Politehniskais Institūts. Rīzskil Politehnīčeskij Institut. Učenye Zapiski. Rīgas Politehniskais Institūts Zinātniskie Raksti. (Riga)

*Riv. Mat. Univ. Parma.* Rivista di Matematica della Università di Parma. (Parma)

*Rjazansk. Gos. Ped. Inst. Učen. Zap.* Rjazanskij Gosudarstvennyj Pedagogičeskij Institut. Učenye Zapiski. (Ryazan)

*Rostov.-na.-Donu Gos. Ped. Inst. Fiz.-Mat. Fak. Učen. Zap.* Rostovskij-na-Donu Gosudarstvennyj Pedagogičeskij Institut. Fiziko-Matematičeskij Fakultet. Učenye Zapiski. (Rostov-on-Don)

*Rozpravy Československé Akad. Věd.* Rozpravy Československé Akademie Věd. (Prague)

*Rozprawy Inst. Polska Akademia Nauk.* Instytut Podstawowych Problemów Techniki. Rozprawy Inżynierskie. (Warsaw)

*Rozprawy Mat.* Polska Akademia Nauk. Instytut Matematyczny. Rozprawy Matematyczne. (Warsaw) (Continued as: *Dissertationes Math. Rozprawy Mat.*)

*Russian Math. Surveys.* Russian Mathematical Surveys. (A translation of the survey articles and of selected biographical articles in *Uspehi Matematicheskikh Nauk*). (London) (Translation of *Uspehi Mat. Nauk*)

*RŽAutomat. Telemeh. i Vyčisl. Tehn.* Akademija Nauk SSSR. Institut Naučnoj Informacii. Referativnyj Zurnal. Avtomatika, Telemekanika i Vyčislitel'naja Tehnika. (Moscow)

*RŽFiz.* Akademija Nauk SSSR. Institut Naučnoj Informacii. Referativnyj Zurnal. Fizika. (Moscow)

*RŽKibernet.* Akademija Nauk SSSR. Institut Naučnoj Informacii. Referativnyj Zurnal. Kibernetika. (Moscow)

*RŽMat.* Akademija Nauk SSSR. Institut Naučnoj Informacii. Referativnyj Zurnal. Matematika. (Moscow)

*RŽMeh.* Akademija Nauk SSSR. Institut Naučnoj Informacii. Referativnyj Zurnal. Mechanika. (Moscow)

*Saab Tech. Notes.* Saab Technical Notes. Svenska Aeroplan Aktiebolaget. (Linköping)

*Sakharth. SSR Mecn. Akad. Gamothvel. Centr. Šrom.* Sakharthvelos SSR Mecnierebathva Akademis Gamothvli thi Centris Šromebi. (Tbilisi) (Formerly listed as: *Trudy Výčisl. Centra Akad. Nauk Gruzin. SSR*)

*Sakharth. SSR Mecn. Akad. Math. Inst. Šrom.* Sakharthvelos SSR Mecnierebathva Akademis A. Razmadzis Sabslobis Tbilisilis Matematikis Institutis Šromebi. (Tbilisi) (Formerly listed as: *Akad. Nauk Gruzin. SSR Trudy Tbiliss. Mat. Inst. Razmadze*)

*Sakharth. SSR Mecn. Akad. Moambe.* Sakharthvelos SSR Mecnierebathva Akademis Moambe. (Tbilisi) (Formerly listed as: *Sovet. Akad. Nauk Gruzin. SSR*)

*Sankhyā Ser. A.* Sankhyā (Statistics). The Indian Journal of Statistics. Series A. (Calcutta)

*Sankhyā Ser. B.* Sankhyā (Statistics). The Indian Journal of Statistics. Series B. (Calcutta)

*S.-B. Berlin. Math. Ges.* Sitzungsberichte der Berliner Mathematischen Gesellschaft. (Berlin)

*S.-B. Deutsch. Akad. Wiss. Berlin Kl. Math. Phys. Tech.* Sitzungsberichte der Deutschen Akademie der Wissenschaften zu Berlin. Klasse für Mathematik, Physik und Technik. (Berlin)

*S.-B. Finn. Akad. Wiss.* Sitzungsberichte der Finnschen Akademie der Wissenschaften. Proceedings of the Finnish Academy of Science and Letters. (Helsinki)

*S.-B. Heidelberg Akad. Wiss. Math.-Natur. Kl.* Sitzungsberichte der Heidelberg Akademie der Wissenschaften. Mathematisch-Naturwissenschaftliche Klasse. (Heidelberg)

ABBREVIATIONS OF NAMES OF JOURNALS

*S.-B. Phys.-Med. Soc. Erlangen.* Sitzungsberichte der physikalisch-medizinischen Sozietät zu Erlangen. (Erlangen)

*S.-B. Sächs. Akad. Wiss. Leipzig Math.-Natur. Kl.* Sitzungsberichte der Sächsischen Akademie der Wissenschaften zu Leipzig. Mathematisch-naturwissenschaftliche Klasse. (Berlin)

*Sb. Prací Ped. Fak. v Ostravě Ser. A 1.* Sborník Prací Pedagogické Faculty v Ostravě. Seria A 1. (Ostrava) (Formerly: *Sb. Prací Ped. Inst. Ostravě*)

*Sb. Prací Ped. Inst. Ostravě.* Sborník Prací Pedagogického Institutu v Ostravě. (Prague) See *Sb. Prací Ped. Fak. v Ostravě Ser. A 1.*

*Sb. Vysokého Učení Tech. Brno.* Sborník Vysokého Učení Technického v Brně. (Brno)

*Schr. Math. Inst. Univ. Münster.* Schriftenreihe des Mathematischen Instituts der Universität Münster. (Münster)

*Schweiz. Z. Vermessg. Kulturtech. Photogr.* Schweizerische Zeitschrift für Vermessung, Kulturtechnik und Photogrammetrie. Revue Technique Suisse des Mensurations, du Génie Rural et de Photogrammétrie. (Winterthur)

*Sci. Abstracts China Sect. Math. Phys. Sci.* Institut of Scientific and Technical Information of China. Science Abstracts of China. Mathematical and Physical Sciences. (Peking)

*Sci. Information Notes.* Scientific Information Notes. (Washington, D.C.)

*Sci. Papers College Gen. Ed. Univ. Tokyo.* Scientific Papers of the College of General Education. University of Tokyo. (Tokyo)

*Sci. Papers Inst. Phys. Chem. Res.* Scientific Papers of the Institute of Physical and Chemical Research. (Tokyo)

*Sci. Proc. Roy. Dublin Soc. Ser. A.* The Scientific Proceedings of the Royal Dublin Society. Series A. (Dublin)

*Sci. Proc. Roy. Dublin Soc. Ser. B.* The Scientific Proceedings of the Royal Dublin Society. Series B. (Dublin)

*Sci. Rep. Fac. Lib. Arts Ed. Gifu Univ. Natur. Sci.* Science Report of the Faculty of Liberal Arts and Education, Gifu University. (Natural Science). (Gifu)

*Sci. Rep. Fac. Lit. Sci. Hirosaki Univ.* Science Reports of the Faculty of Literature and Science. Hirosaki University. (Hirosaki) (Continued as: *Sci. Rep. Hirosaki Univ.*)

*Sci. Rep. Hirosaki Univ.* Science Reports of the Hirosaki University. (Hirosaki) (Formerly: *Sci. Rep. Fac. Lit. Sci. Hirosaki Univ.*)

*Sci. Rep. Kagoshima Univ.* Science Reports of the Kagoshima University. (Kagoshima)

*Sci. Rep. Kanazawa Univ.* The Science Reports of the Kanazawa University. (Kanazawa)

*Sci. Rep. Niigata Univ. Ser. A.* Science Reports of Niigata University. Series A (Mathematics). (Niigata)

*Sci. Rep. Res. Inst. Theoret. Phys. Hiroshima Univ.* Scientific Reports of the Research Institute for Theoretical Physics, Hiroshima University. (Hiroshima)

*Sci. Rep. Res. Inst. Tōhoku Univ. Ser. A.* The Science Reports of the Research Institutes. Tōhoku University. Series A (Physics, Chemistry and Metallurgy). (Sendai)

*Sci. Rep. Saitama Univ. Ser. A.* The Science Reports of the Saitama University. Series A. Mathematics, Physics and Chemistry. (Urawa)

*Sci. Rep. Tōhoku Univ. Ser. I.* The Science Reports of the Tōhoku University. First Series. (Physics, Chemistry, Astronomy). (Sendai)

*Sci. Rep. Tokyo Kyōiku Daigaku Sect. A.* Science Reports of the Tokyo Kyōiku Daigaku (Tokyo University of Education). Section A. (Tokyo)

*Sci. Rep. Yokohama Nat. Univ. Sect. I.* Science Reports of the Yokohama National University. Section I. Mathematics, Physics. (Yokohama)

*Sci. Sinica.* Scientia Sinica. (Peking)

*Scientia (Valparaíso).* Universidad Técnica Federico Santa María. Scientia. (Valparaíso)

*Scripta Math.* Scripta Mathematica. A Quarterly Journal Devoted to the Philosophy, History, and Expository Treatment of Mathematics. (New York)

*Shenzhou Xuebao.* See *Acta Acust. Sinica.*

*Shurui Jinzhan.* Chinese Mathematical Society. Academia Sinica. Shuxue Jinzhan (Progress in Mathematics). (Peking)

*SIAM J. Appl. Math.* SIAM Journal on Applied Mathematics. (Philadelphia, Pa.) (Formerly: *J. Soc. Indust. Appl. Math.*)

*SIAM J. Control.* SIAM Journal on Control. (Philadelphia, Pa.) (Formerly: *J. Soc. Indust. Appl. Math. Ser. A Control*)

*SIAM J. Numer. Anal.* SIAM Journal on Numerical Analysis. (Philadelphia, Pa.) (Formerly: *J. Soc. Indust. Appl. Math. Ser. B Numer. Anal.*)

*SIAM Rev.* SIAM Review. A Publication of the Society for Industrial and Applied Mathematics. (Philadelphia, Pa.)

*Sibirsk. Mat. Ž.* Akademija Nauk SSSR. Sibirskoe Otdelenie. Sibirskij Matematicheskij Žurnal. (Moscow)

*Simon Stevin.* Simon Stevin. Wiskundig Tijdschrift. (Groningen-Djakarta)

*Skand. Aktuarietidskr.* Skandinavisk Aktuarietidskrift. (Uppsala)

*Skr. Norske Vid.-Akad. Oslo I.* Skrifter Utgitt av det Norske Videnskaps-Akademie i Oslo. I. Mat.-Naturv. Klasse. (Oslo)

*Smithsonian Contrib. to Astrophys.* Smithsonian Contributions to Astrophysics. (Washington, D.C.)

*Soc. Actuar. Trans.* Society of Actuaries. Transactions. (Chicago, Ill.)

*Soc. Parana. Mat. Anuário.* Anuário da Sociedade Paranaense de Matemática. (Curitiba)

*Soc. Sci. Fenn. Comment. Phys.-Math.* Societas Scientiarum Fennica. Commentationes Physico-Mathematicae. (Helsinki)

*Soošt. Akad. Nauk Gruzin. SSR.* Soobščenija Akademii Nauk Gruzinsskoi SSR. (Tbilisi) See *Sakharth. SSR Meon. Akad. Moambe.*

*Soviet Appl. Mech.* Soviet Applied Mechanics. (New York) (Translation of *Prikladna. Meh.*)

*Soviet Astronom. AJ.* Soviet Astronomy. AJ. (A translation of *Astronomičeskij Žurnal* of the Academy of Sciences of the USSR). (New York) (Translation of *Astronom. Ž.*)

*Soviet J. Nuclear Phys.* American Institute of Physics. Soviet Journal of Nuclear Physics. (New York) (Translation of *Jadernaja Fiz.*)

*Soviet Math. Dokl.* Soviet Mathematics. Doklady. (A translation of the mathematics section of *Doklady Akademii Nauk SSSR*). (Providence, R.I.) (Translation of mathematics section of *Dokl. Akad. Nauk SSSR*)

*Soviet Physics Acoust.* Soviet Physics. Acoustics. (A translation of *Akustičeskij Žurnal* of the Academy of Sciences of the USSR). (New York) (Translation of *Akust. Ž.*)

*Soviet Physics Cryst.* Soviet Physics. Crystallography. (A translation of the journal *Kristallografiya* of the Academy of Sciences of the USSR). (New York) (Translation of *Kristallografiya*)

*Soviet Physics Dokl.* Soviet Physics. Doklady. (A translation of the physics sections of *Doklady Akademii Nauk SSSR*). (New York) (Translation of physics sections of *Dokl. Akad. Nauk SSSR*)

*Soviet Physics JETP.* Soviet Physics. JETP. (A translation of *Ž. Èksperimental'noj i Teoreticheskoi Fiziki* of the USSR). (New York) (Translation of *Ž. Èksper. Teoret. Fiz.*)

*Soviet Physics Solid State.* Soviet Physics. Solid State. (A translation of the journal *Fizika Tverdogo Tela* of the Academy of Sciences of the USSR). (New York) (Translation of *Fiz. Tverd. Tela*)

*Soviet Physics Tech. Phys.* Soviet Physics. Technical Physics. (A translation of *Žurnal Tekhnicheskoi Fiziki* of the Academy of Sciences of the USSR). (New York) (Translation of *Ž. Tehn. Fiz.*)

*Soviet Physics Uspekhi.* Soviet Physics. Uspekhi. (A translation of *Uspehi Fizicheskich Nauk* (Advances in the Physical Sciences) of the Academy of Sciences, U.S.S.R.). (New York) (Translation of *Uspehi Fiz. Nauk*)

ABBREVIATIONS OF NAMES OF JOURNALS

*Soviet Radio Engrg.* Soviet Radio Engineering. (A translation of *Investiysi VUZ Radiotekhnika* of the Higher Educational Institute of the USSR). (New York) (Translation of *Izv. Vysš. Učebn. Zaved. Radioelektron.*)

*Soviet Radiophys.* Soviet Radiophysics. (A translation of the *Investiysi Vysš. Učebn. Zavedenii Radiofizika* of the Ministry of Higher Education of the USSR). (New York) (Translation of *Izv. Vysš. Učebn. Zaved. Radiofizika*)

*Spisy Ped. Fak. v Ostravě.* Spisy Pedagogické Fakulty v Ostravě. (Ostrava)

*Spisy Přírod. Fak. Univ. Brno.* Spisy Přírodovědecké Fakulty University v Brně. Trudy Estestvenno-Istorického Fakulteta Universiteta v g. Brno. Publications de la Faculté des Sciences de l'Université à Brno. (Brno)

*Stanford Res. Inst. J.* Stanford Research Institute Journal. (Menlo Park, Calif.)

*Statist. Theory Method Abstracts.* Statistical Theory and Method Abstracts. (London)

*Statistica (Bologna).* Statistica. (Bologna)

*Statistica Nederlandica.* Statistica Nederlandica. Orgaan van de Vereniging voor Statistiek. (The Hague)

*Stroje na Zpracování Informací.* Československá Akademie Věd. Výzkumný Ústav Matematických Strojů. Research Institute of Mathematical Machines. Isaledovatel'skij Institut Matematicheskikh Mašin. Stroje na Zpracování Informací. (Prague)

*Stud. Cerc. Fiz.* Studii și Cercetări de Fizică. (Bucharest)

*Stud. Cerc. Mat.* Studii și Cercetări Matematice. (Bucharest)

*Stud. Cerc. Mec. Apl.* Studii și Cercetări de Mecanică Apliointă. (Bucharest) (Formerly: *Acad. R. P. Române Stud. Cerc. Mec. Apl.*)

*Studio Logico.* Polska Akademia Nauk. Komitet Filozoficzny. Studia Logica. (Warsaw)

*Studio Math.* Polska Akademia Nauk. Studia Mathematica. (Warsaw)

*Studio Rev. Univ. del Atlántico.* Universidad del Atlántico. Studia Revista de la Universidad del Atlántico. (Barranquilla)

*Studia Sci. Math. Hungar.* Consilium Instituti Mathematici Academiae Scientiarum Hungaricae. Studia Scientiarum Mathematicarum Hungaricae. (Budapest) (Formerly: *Magyar Tud. Akad. Mat. Kutató Int. Közl.*)

*Studia Univ. Babeș-Bolyai Ser. Math.-Phys.* Studia Universitatis Babeș-Bolyai. Series Mathematica-Physica. (Cluj)

*Sudhoff's Arch.* Sudhoff's Archiv für Geschichte der Medizin und der Naturwissenschaften. (Wiesbaden)

*Sūgaku.* Mathematical Society of Japan. Sūgaku (Mathematics). (Tokyo)

*Su-hak kwa Mul-ki.* Academy of Science of the People's Democratic Republic of Korea. Research Center for Physics and Mathematics. Su-hak kwa Mul-ki (Mathematics and Physics). (Pyongyang)

*Summa Brasil. Math.* Summa Brasiliensis Mathematicae. (Rio de Janeiro)

*Tartu Riikl. Ül. Toimetised.* Tartu Riikliku Ülikooli Toimetised. Üõenye Zapiaki Tartuakogo Gosudarstvennogo Universiteta. Matemaatika-Loodusteadusakonna Töid. Trudy Estestvenno-Matematičeskogo Fakulteta. (Tartu)

*Tashkent. Gos. Ped. Inst. Učen. Zap.* Ministerstvo Prosvetlenija Uzbeckoj SSR. Taškentskij Gosudarstvennyj Pedagogičeskij Institut im. Nizami. Učenye Zapiski. (Tashkent)

*Tashkent. Gos. Univ. Naučn. Trudy.* Taškentskij Gosudarstvennyj Universitet. Naučnye Trudy. (Tashkent)

*Taškent. Politehn. Inst. Naučn. Trudy.* Ministerstvo Vysšego i Srednego Specjal'nogo Obrazovanija. Taškentskij Politehnicheskij Institut. Naučnye Trudy. Novaja Serija. (Tashkent)

*Taškent. Tekstil. Inst. Kaf. Vysš. Mat. Sb. Naučn.-Issled. Rabot Ser. Mat.* Taškentskij Tekstil'nyj Institut. Kafedra Vysšej Matematiki. Sbornik Naučno-Issledovatel'skih Rabot. Serija Matematiki. (Tashkent)

*Tbiliss. Gos. Univ. Trudy Ser. Fiz. Nauk.* Tbilisskij Gosudarstvennyj Universitet. Trudy. Serija Fizicheskikh Nauk. (Tbilisi) See *Tbilisi. Saheleq. Univ. Šrom. Phiz. Mechn. Ser.*

*Tbilisi. Gos. Univ. Trudy Ser. Meh.-Mat. Nauk.* Tbilisskij Gosudarstvennyj Universitet. Trudy. Serija Mehaniko-Matematičeskikh Nauk. (Tbilisi) See *Tbilisi. Saheleq. Univ. Šrom. Mekh.-Math. Mechn. Ser.*

*Tech. Mitt. Krupp.* Technische Mitteilungen Krupp. (Essen)

*Tech. Moderne.* La Technique Moderne. (Paris)

*Tech. Rep. Osaka Univ.* Technology Reports of the Osaka University. (Osaka)

*Tech. Rep. Engry. Res. Inst. Kyoto Univ.* Technical Reports of the Engineering Research Institute. Kyoto University. (Kyoto)

*Tech. Transl.* Technical Translations. (Washington, D.C.)

*Technometrics.* Technometrics. A Journal of Statistics for the Physical, Chemical and Engineering Sciences. (Princeton, N.J.)

*Tellus.* Svenska Geofysiska Föreningen. Tellus. A Quarterly Journal of Geophysics. (Uppsala)

*Tensor.* Tensor. New Series. The Tensor Society. (Tokyo)

*Teor. Funkcij Funkcional. Anal. i Prilozhen.* Har'kovskij Ordjena Trudovogo Krasnogo Znameni Gosudarstvennyj Universitet imeni A. M. Gor'kogo. Teoriya Funkcij, Funkcional'nyj Analiz i ih Prilozhenija. (Kharkov)

*Teor. Verojatnost. i Primenen.* Akademija Nauk SSSR. Teoriya Verojatnostej i ee Primenenija. (Moscow) (Translated as: *Theor. Probability Appl.*)

*Teoret. Èlektrotehn.* L'vovskij Gosudarstvennyj Universitet. Teoretičeskaja Èlektrotehnika. (Lvov)

*Teoret. Prikl. Mat.* MVSSO URSR L'viv'skij Ordjena Lenina Dzeržinskogo Universitet im. Iv. Franka. Teoretična i Prikladna Matematika. (Lvov)

*Thalès.* Thalès. Recueil Annuel des Travaux de l'Institut d'Histoire des Sciences et des Techniques de l'Université de Paris. (Paris)

*Tbilisi. Saheleq. Univ. Šrom. Mekh.-Math. Mechn. Ser.* Tbilisi. Saheleq. Univ. Šrom. Mekhanika-Matematikis Mecnierebathia Seria. (Tbilisi) (Formerly listed as: *Tbiliss. Gos. Univ. Trudy Ser. Meh.-Mat. Nauk*)

*Tbilisi. Saheleq. Univ. Šrom. Phiz. Mechn. Ser.* Tbilisi. Saheleq. Univ. Šrom. Phizikis Mecnierebathia Seria. (Tbilisi) (Formerly listed as: *Tbiliss. Gos. Univ. Trudy Ser. Fiz. Nauk*)

*Theor. Probability Appl.* Theory of Probability and its Applications. (An English translation of the Soviet journal *Teoriya Verojatnostej i ee Primenenija*). (Philadelphia, Pa.) (Translation of *Teor. Verojatnost. i Primenen.*)

*Theoria (Lund).* Theoria. A Swedish Journal of Philosophy and Psychology. (Lund)

*Tjumen. Gos. Ped. Inst. Učen. Zap.* Ministerstvo Prosvetlenija RSFSR. Tjumen'skij Gosudarstvennyj Pedagogičeskij Institut. Učenye Zapiski. (Tyumen)

*Tōhoku Math. J.* The Tōhoku Mathematical Journal. (Sendai)

*Tomsk. Gos. Univ. Učen. Zap.* Tomskij Gosudarstvennyj Universitet im. V. V. Kuibysheva. Učenye Zapiski. (Tomsk)

*Topology.* Topology. An International Journal of Mathematics. (Oxford)

*Trabajos Estadist.* Trabajos de Estadística. (Madrid)

*Trans. Amer. Math. Soc.* Transactions of the American Mathematical Society. (Providence, R.I.)

*Trans. Amer. Philos. Soc.* Transactions of the American Philosophical Society Held at Philadelphia for Promoting Useful Knowledge. (Philadelphia, Pa.)

*Trans. ASME Ser. B. J. Engrg. Indust.* Transactions of the ASME. Series B. Journal of Engineering for Industry. (New York)

*Trans. ASME Ser. E. J. Appl. Mech.* Transactions of the ASME. Series E. Journal of Applied Mechanics. (New York)

ABBREVIATIONS OF NAMES OF JOURNALS

*Trans. Faraday Soc.* Transactions of the Faraday Society. (London)

*Trans. Moscow Math. Soc.* Transactions of the Moscow Mathematical Society. (Providence, R.I.) (Translation of *Trudy Moskow. Mat. Obšč.*)

*Trans. New York Acad. Sci.* Transactions of the New York Academy of Sciences. (New York)

*Trans. Roy. Soc. Edinburgh.* Transactions of the Royal Society of Edinburgh. (Edinburgh)

*Trans. Roy. Soc. New Zealand General.* Transactions of the Royal Society of New Zealand. General. (Wellington)

*Trans. Roy. Soc. South Africa.* Transactions of the Royal Society of South Africa. (Cape Town)

*Transportation Sci.* Operations Research Society of America. Transportation Science Section. Transportation Science. (Baltimore, Md.)

*Trav. Soc. Sci. Lett. Wrocław Ser. B.* Travaux de la Société des Sciences et des Lettres de Wrocław. Seria B. (Wrocław)

*Trudy Akad. Nauk Litov. SSR Ser. B.* Lietuvos TSR Mokslo Akademijos Darbai. Serija B. Akademijos Nauk Litovskoj SSR. Trudy. Serija B. (Vilnius)

*Trudy Fiz. Inst. Lebedev.* Akademija Nauk SSSR. Trudy Fizicheskogo Instituta im. P. N. Lebedeva. (Moscow)

*Trudy Geometr. Sem.* Akademija Nauk SSSR. Institut Naučnoj Informacii. VINITI. Trudy Geometricheskogo Seminara. (Moscow)

*Trudy Inst. Istor. Estest. Tehn.* Akademija Nauk SSSR. Trudy Instituta Istorii Estestvoznanija i Tehniki. (Moscow)

*Trudy Inst. Teoret. Astronom.* Akademija Nauk SSSR. Trudy Instituta Teoreticheskoi Astronomii. (Moscow)

*Trudy Kazan. Aviacion. Inst.* Trudy Kazanskogo Aviacionnogo Instituta. Matematika i Mekhanika. (Kazan)

*Trudy Leningrad. Tehn. Inst. Trudy Kafedr Meh. Fak.* Ministerstvo Vysšego Obrazovanija SSSR. Trudy Leningradskogo Tekhnologicheskogo Instituta imeni Lensoveta. Trudy Kafedr Mekhanicheskogo Fakul'teta. (Leningrad)

*Trudy Mat. Inst. Steklov.* Akademija Nauk Sojuza Sovetskikh Socialističeskikh Respublik. Trudy Matematicheskogo Instituta im. V. A. Steklova. (Moscow-Leningrad) (Translated as: *Proc. Steklov Inst. Math.*)

*Trudy Moskov. Mat. Obšč.* Trudy Moskovskogo Matematicheskogo Obščestva. (Moscow) (Translated as: *Trans. Moscow Math. Soc.*)

*Trudy Moskov. Orden. Lenin. Ènerget. Inst.* Ministerstvo Vysšego i Srednego Special'nogo Obrazovanija RSFSR. Trudy Moskovskogo Ordena Lenina Ènergeticheskogo Instituta. (Moscow)

*Trudy Naučn. Ob'ed. Prepodav. Fiz.-Mat. Fak. Ped. Inst. Dal'n. Vostok.* Ministerstvo Prosvetlenija RSFSR. Habarovskij Gosudarstvennyj Pedagogicheskij Institut. Trudy Naučnogo Ob'edinenija Prepodavatelei Fiziko-matematicheskikh Fakul'tetov Pedagogicheskikh Institutov Dal'nego Vostoka. (Khabarovsk)

*Trudy Samarkand. Gos. Univ. Mat.* Ministerstvo Vysšego i Srednego Special'nogo Obrazovanija UzSSR. Trudy Samarkandskogo Gosudarstvennogo Universiteta im. A. Navoi. Matematika. (Samarkand)

*Trudy Sem. Obratn. Kraev. Zadačam.* Trudy Seminara po Obratnym Kraevym Zadačam. (Kazan)

*Trudy Sem. Teor. Differencial. Uravneni i Otklon. Argumentom Univ. Družby Narodov Patria Lumumbi.* Trudy Seminara po Teorii Differencial'nyh Uravnenij s Otklonajucimisja Argumentom. Universitet Družby Narodov imeni Patria Lumumbi. (Moscow)

*Trudy Sem. Vektor. Tensor. Anal.* Trudy Seminara po Vektornomu i Tenzornomu Analizu s ih Prilozhenijami k Geometrii, Mekhanike i Fizike. (Moscow)

*Trudy Taškent. Gos. Univ.* Trudy Taškentskogo Gosudarstvennogo Universiteta im. V. I. Lenina. Matematika. (Tashkent) See *Taškent. Gos. Univ. Naučn. Trudy.*

*Trudy Tomsk. Gos. Univ. Ser. Meh.-Mat.* Trudy Tomskogo Gosudarstvennogo Universiteta im. V. V. Kuibysheva. Serija Mekhaniko-Matematicheskaja. (Tomsk)

*Trudy Vyčisl. Centra Akad. Nauk Gruzii. SSR.* Akademija Nauk Gruzijskoj SSR. Trudy Vyčislitel'nogo Centra. (Tbilisi) See *Sakharov. SSR Mez. Akad. Gamtoch. Centr. Šrom.*

*Trudy Vyčisl. Centra Tartu. Gos. Univ.* Trudy Vyčislitel'nogo Centra. Tartuskiy Gosudarstvennyj Universitet. (Tartu)

*Turkmen. Gos. Univ. Učen. Zap.* Ministerstvo Narodnogo Obrazovanija TSSR. Turkmeneskij Gosudarstvennyj Universitet imeni A. M. Gor'kogo. Učenye Zapiski. (Ashkhabad)

*U.S.S.R. Comput. Math. and Math. Phys.* U.S.S.R. Computational Mathematics and Mathematical Physics. (Oxford) (Translation of *Z. Vyčisl. Mat. i Mat. Fiz.*)

*Učen. Zap. Borisoglebsk. Gos. Ped. Inst.* Ministerstvo Prosvetlenija RSFSR. Učenye Zapiski. Borisoglebskogo Gosudarstvennogo Pedagogicheskogo Instituta. (Borisoglebsk)

*Učen. Zap. Karel. Ped. Inst. Ser. Fiz.-Mat. Nauk.* Ministerstvo Prosvetlenija RSFSR. Karel'skij Pedagogicheskij Institut. Učenye Zapiski. Serija Fiziko-Matematicheskikh Nauk. (Petrozavodsk)

*Ukrain. Fiz. Z.* Akademija Nauk Ukrainskoj RSR. Viddil Fiziki. Ukrains'kij Fizichni Žurnal. (Russian and Ukrainian editions) (Kiev)

*Ukrain. Geometr. Sb.* Ministerstvo Vysšego i Srednego Special'nogo Obrazovanija USSR. Ukrainskij Geometricheskij Sbornik. (Khar'kov)

*Ukrain. Mat. Ž.* Akademija Nauk Ukrainskoj SSR. Institut Matematiki. Ukrainskij Matematicheskij Žurnal. (Kiev)

*Univ. Beograd. Publ. Elektrotehn. Fak. Ser. Mat. Fiz.* Univerzitet u Beogradu. Publikacije Elektrotehničkog Fakulteta. Serija Matematika i Fizika. (Belgrade)

*Univ. Buenos Aires Contrib. Ci. Ser. Fis.* Universidad de Buenos Aires. Facultad de Ciencias Exactas, Fisicas y Naturales. Contribuciones Cientificas. Serie Fisica. (Buenos Aires)

*Univ. Buenos Aires Contrib. Ci. Ser. Mat.* Universidad de Buenos Aires. Facultad de Ciencias Exactas y Naturales. Contribuciones Cientificas. Serie Matematica. (Buenos Aires)

*Univ. Central Venezuela Bol. Fac. Ing.* Universidad Central de Venezuela. Boletin de la Facultad de Ingenieria. (Caracas)

*Univ. e Politec. Torino Rend. Sem. Mat.* Università e Politecnico di Torino. Rendiconti del Seminario Matematico (già "Conferenze di Fisica e di Matematica"). (Turin)

*Univ. Illinois Bull. Engrg. Exper. Station Bull.* University of Illinois. Bulletin. Engineering Experiment Station Bulletin. (Urbana, Ill.)

*Univ. Lisboa Revista Fac. Ci. A.* Universidad de Lisboa. Revista da Facultade de Ciencias. 2.ª Serie. A. Ciencias Matemáticas. (Lisbon)

*Univ. Madrid Publ. Sec. Mat. Fac. Ci.* Universidad de Madrid. Publicaciones de la Sección de Matemática de la Facultad de Ciencias. (Madrid)

*Univ. Nac. Ingen. Inst. Mat. Puras Apl. Notas Mat.* Universidad Nacional de Ingenieria. Instituto de Matemáticas Puras y Aplicadas. Notas de Matemáticas. (Lima)

*Univ. Nac. La Plata Publ. Fac. Ci. Fisicomat. Serie Segunda Rev. (or Contrib.)* Universidad Nacional de La Plata. Publicaciones de la Facultad de Ciencias Fisicomatemáticas. Serie Segunda. Revista (or Contribuciones). (La Plata)

*Univ. Nac. La Plata Publ. Fac. Ci. Fisicomat. Serie Tercera Publ. Esp.* Universidad Nacional de La Plata. Publicaciones de la Facultad de Ciencias Fisicomatemáticas. Serie Tercera. Publicaciones Especiales. (La Plata)

*Univ. Nac. Tucumán Rev. Ser. A.* Universidad Nacional de Tucumán. Facultad de Ciencias Exactas y Tecnología. Revista. Serie A. Matemáticas y Física Teórica. (Tucumán)

*Univ. Repub. Fac. Ingen. Agrimens. Montevideo Publ. Inst. Mat. Estadist.* Universidad de la República. Facultad de Ingenieria y Agrimensura. Montevideo-Uruguay. Publicaciones del Instituto de Matemática y Estadística. (Montevideo)

*Univ. Roorkee Res. J.* University of Roorkee. Research Journal. (Roorkee)

*Univ. Adama Mickiewicza w Poznani. Prace Wydz. Mat. Fiz. Chem. Ser. Mat.* Uniwersytet im. Adama Mickiewicza w Poznaniu. Prace Wydziału Matematyki, Fiziki i Chemii. Seria Matematyka. (Poznań)

*Unternehmensforschung.* Unternehmensforschung. Operations Research—Recherche Opérationnelle. (Würzburg)

ABBREVIATIONS OF NAMES OF JOURNALS

*Ural. Gos. Univ. Mat. Zap.* Ministerstvo Vysšego i Srednego Specjal'nogo Obrazovaniya RSFSR. Ural'skij Gosudarstvennyj Universitet im. A. M. Gor'kogo. Ural'skoe Matematicheskoe Obščestvo. Matematicheskie Zapiski. (Sverdlovsk)

*Ural. Politehn. Inst. Sb.* Ministerstvo Prosvetlenija RSFSR. Ural'skij Politehnicheskij Institut im. S. M. Kirova. Sbornik. (Sverdlovsk)

*Uspeni Fiz. Nauk.* Akademija Nauk SSSR. Uspeni Fizicheskich Nauk. (Moscow-Leningrad) (Translated as: *Soviet Physics Uspenki*)

*Uspeni Mat. Nauk.* Akademija Nauk SSSR i Moskovskoe Matematicheskoe Obščestvo. Uspeni Matematicheskich Nauk. (Moscow-Leningrad) (Selected articles translated as: *Russian Math. Surveys*)

*Užgorod. Gos. Univ. Naučn. Zap.* MVO USSR. Užgorodskij Gosudarstvennyj Universitet. Naučnye Zapiski. (Lvov)

*V. I. Lenin. Sakharov. Politekh. Inst. Šrom.* V. I. Leninis Sahelobis Šromis Citheli Droši Ordenosan Sakharthvelos Politekhnikuri Instituti. Šromebi. (Tbilisi) (Formerly listed as: *Gruzin. Politehn. Inst. Trudy*)

*Verh. Nederl. Akad. Wetensch. Afd. Natuurk. Sect. I.* Verhandelingen der Koninklijke Nederlandse Akademie van Wetenschappen, Afdeling Natuurkunde. Eerste Sectie. (Amsterdam)

*Vesci Akad. Navuk BSSR Ser. Fiz.-Mat. Navuk.* Vesci Akademii Navuk BSSR. Seryja Fizika-matematyčnij Navuk. (Minsk)

*Vesci Akad. Navuk BSSR Ser. Fiz.-Téhn. Navuk.* Vesci Akademii Navuk BSSR. Seryja Fizika-Téhničnij Navuk. (Minsk)

*Vestnik Akad. Nauk Kazah. SSR.* Vestnik Akademii Nauk Kazahskoj SSR. (Alma-Ata)

*Vestnik Har'kov. Gos. Univ.* Ministerstvo Vysšego i Srednego Specjal'nogo Obrazovaniya USSR. Vestnik Har'kovskogo Gosudarstvennogo Universiteta. Serija Mechaniko-Matematicheskaja. Zapiski Mechaniko-Matematicheskogo Fakulteta i Har'kovskogo Matematicheskogo Obščestva. (Kharkov) (Formerly: *Har'kov. Gos. Univ. Učen. Zap.*)

*Vestnik Leningrad. Univ.* Vestnik Leningradskogo Universiteta. (Leningrad)

*Vestnik L'vov. Politehn. Inst.* Ministerstvo Vysšego i Srednego Specjal'nogo Obrazovaniya USSR. Vestnik L'vovskogo Politehnicheskogo Instituta. (Lvov)

*Vestnik Moskov. Univ. Ser. I Mat. Meh.* Vestnik Moskovskogo Universiteta. Serija I. Matematika, Mekhanika. (Moscow)

*Vestnik Moskov. Univ. Ser. III Fiz. Astronom.* Vestnik Moskovskogo Universiteta. Serija III. Fizika, Astronomija. (Moscow) (Translated as: *Moscow Univ. Bull. Ser. III Phys. Astronom.*)

*Vidya.* Vidya (Knowledge). The Journal of the Gujarat University. (Ahmedabad)

*Vierteljahrscr. Naturforsch. Ges. Zürich.* Vierteljahrsschrift der Naturforschenden Gesellschaft in Zürich. (Zürich)

*Vijnana Parishad Anusandhan Patrika.* Vijnana Parishad Anusandhan Patrika [The Research Journal of the Hindi Science Academy]. (Allahabad)

*Virginia J. Sci.* The Virginia Journal of Science. A Journal issued Quarterly by the Virginia Academy of Sciences. (Blacksburg, Va.)

*Vianik Kilev. Univ.* Vianik Kilev'kogo Universitetu. (Kiev)

*Vianik L'viv. Derž. Univ. Ser. Meh.-Mat.* Ministerstvo Vškol i Srednol Specjal'nol Osviti URSR. Vianik L'viv'skogo Ordena Lenina Deržavnogo Universitetu im. Ivana Franka. (Lvov)

*Voll. Mat. Sb.* Ministerstvo Prosvetlenija RSFSR. Kuibyl'evskij Gosudarstvennyj Pedagogiceskij Institut imeni V. V. Kuibyl'eva. Vol'skij Matematicheskij Sbornik. (Kuibyl'ev)

*Voprosy Kosmog.* Akademija Nauk SSSR. Voprosy Kosmogonii. (Moscow)

*Voprosy Vyčisl. Mat. Tehn.* Akademija Nauk Uzbekskoj SSR. Institut Mekhaniki i Vyčislitel'nyj Centr. Voprosy Vyčislitel'noj Matematiki i Tekhniki. (Tashkent)

*Vyčisl. Mat. (Kiev).* Kievskij Gosudarstvennyj Universitet. Kafedra Vyčislitel'noj Matematiki. Vyčislitel'naja Matematika. (Kiev)

*Vyčisl. Sistemy.* Akademija Nauk SSSR. Sibirskoe Otделение. Institut Matematiki. Vyčislitel'nye Sistemy. Sbornik Trudov. (Novosibirsk)

*Vyčisl. Tehn. Voprosy Programm.* Leningradskij Ordena Lenina Gosudarstvennyj Universitet imeni A. A. Ždanova. Kafedra Vyčislitel'noj Matematiki i Vyčislitel'nyj Centr. Vyčislitel'naja Tekhnika i Voprosy Programmirovaniya. (Leningrad)

*Wiadom. Mat.* Roczniki Polskiego Towarzystwa Matematycznego. Ser. II. Wiadomości Matematyczne. (Warsaw)

*Wiss. Z. Ernst-Moritz-Arndt-Univ. Greifswald Math.-Natur. Reihe.* Wissenschaftliche Zeitschrift der Ernst-Moritz-Arndt-Universität Greifswald. Mathematisch-Naturwissenschaftliche Reihe. (Greifswald)

*Wiss. Z. Friedrich-Schiller-Univ. Jena/Thüringen.* Wissenschaftliche Zeitschrift der Friedrich-Schiller-Universität Jena/Thüringen. (Jena/Thüringen)

*Wiss. Z. Hochsch. Architektur Bauwesen Weimar.* Wissenschaftliche Zeitschrift der Hochschule für Architektur und Bauwesen Weimar. (Weimar)

*Wiss. Z. Hochsch. Maschin. Karl-Marx-Stadt.* Wissenschaftliche Zeitschrift der Hochschule für Maschinenbau Karl-Marx-Stadt. (Karl-Marx-Stadt)

*Wiss. Z. Hochsch. Verkehrswesen "Friedrich List" Dresden.* Wissenschaftliche Zeitschrift der Hochschule für Verkehrswesen "Friedrich List" in Dresden. Die Anwendung mathematischer Methoden im Transport- und Nachrichtenwesen. (Dresden)

*Wiss. Z. Humboldt-Univ. Berlin Math.-Natur. Reihe.* Wissenschaftliche Zeitschrift der Humboldt-Universität Berlin. Mathematisch-Naturwissenschaftliche Reihe. (Berlin)

*Wiss. Z. Karl-Marx-Univ. Leipzig Math.-Natur. Reihe.* Wissenschaftliche Zeitschrift der Karl-Marx-Universität Leipzig. Mathematisch-Naturwissenschaftliche Reihe. (Leipzig)

*Wiss. Z. Martin-Luther-Univ. Halle-Wittenberg Math.-Natur. Reihe.* Wissenschaftliche Zeitschrift der Martin-Luther-Universität Halle-Wittenberg. Mathematisch-Naturwissenschaftliche Reihe. (Halle-Wittenberg)

*Wiss. Z. Pädagog. Hochsch. Potsdam Math.-Natur. Reihe.* Wissenschaftliche Zeitschrift der Pädagogischen Hochschule Potsdam. Mathematisch-Naturwissenschaftliche Reihe. (Potsdam)

*Wiss. Z. Techn. Hochsch. Chem. Leuna-Merseburg.* Wissenschaftliche Zeitschrift der Technischen Hochschule für Chemie Leuna-Merseburg. (Leuna-Merseburg)

*Wiss. Z. Techn. Hochsch. Ilmenau.* Wissenschaftliche Zeitschrift der Technischen Hochschule Ilmenau. (Ilmenau)

*Wiss. Z. Techn. Univ. Dresden.* Wissenschaftliche Zeitschrift der Technischen Universität Dresden. (Dresden)

*Wyzs. Szkoła Ped. Krakow. Rocznik Nauk.-Dydakt. Prace Mat. Wyższa Szkoła Pedagogiczna w Krakowie. Rocznik Naukowo-Dydaktyczny. Prace Matematyczne.* (Cracow)

*Yokohama Math. J.* Yokohama Mathematical Journal. (Yokohama)

*Z. Angew. Math. Mech.* Zeitschrift für Angewandte Mathematik und Mechanik. Ingenieurwissenschaftliche Forschungsarbeiten. (Berlin)

*Z. Angew. Math. Phys.* Zeitschrift für Angewandte Mathematik und Physik. ZAMP. Journal of Applied Mathematics and Physics. Journal de Mathématiques et de Physiques Appliquées. (Basel)

*Z. Angew. Phys.* Zeitschrift für Angewandte Physik. (Berlin)

*Z. Astrophys.* Zeitschrift für Astrophysik. (Berlin-Göttingen-Heidelberg)

*Z. Ėksp. Teoret. Fiz.* Akademija Nauk SSSR. Zurnal Ėkperimentalnoj i Teoretičeskoi Fiziki. (Moscow) (Translated as: *Soviet Physics JETP*)

*Z. Flugwiss.* Zeitschrift für Flugwissenschaften. (Braunschweig)

*Z. Math. Logik Grundlagen Math.* Zeitschrift für Mathematische Logik und Grundlagen der Mathematik. (Berlin)

*Z. Meteorol.* Zeitschrift für Meteorologie. (Berlin)

ABBREVIATIONS OF NAMES OF JOURNALS

Z. Naturforsch. Zeitschrift für Naturforschung. (Tübingen)

Z. Phonetik Sprachwiss. Kommunikat. Zeitschrift für Phonetik Sprachwissenschaft und Kommunikationsforschung. (Berlin)

Z. Physik. Zeitschrift für Physik. (Berlin-Göttingen-Heidelberg)

Ž. Prikl. Meh. i Tehn. Fiz. Žurnal Prikladnoj Mekhaniki i Tehničeskoi Fiziki. (Moscow)

Ž. Tehn. Fiz. Akademija Nauk SSSR. Žurnal Tehničeskoi Fiziki. (Moscow-Leningrad) (Translated as: *Soviet Physics Tech. Phys.*)

Ž. Vychisl. Mat. i Mat. Fiz. Akademija Nauk SSSR. Žurnal Vychislitel'noj Matematiki i Matematičeskoi Fiziki. (Moscow) (Translated as: *U.S.S.R. Comput. Math. and Math. Phys.*)

Z. Wahrscheinlichkeitstheorie und Verw. Gebiete. Zeitschrift für Wahrscheinlichkeitstheorie und Verwandte Gebiete. (Berlin)

Zap. Meh.-Mat. Fak. i Har'kov. Mat. Obšč. See *Vestnik Har'kov. Gos. Univ.*

Zastos. Mat. Polska Akademia Nauk. Instytut Matematyczny. Zastosowania Matematyki. (Warsaw)

Zbl. Zentralblatt für Mathematik und ihre Grenzgebiete. (Berlin-Göttingen-Heidelberg)

Zbl. Math. Zentralblatt für Mathematik und ihre Grenzgebiete. (Berlin-Göttingen-Heidelberg) (Usually abbreviated *Zbl* in the text of *Math. Reviews*)

Zeszyty Nauk. Politech. Warszawsk. Mat. Politechnika Warszawska. Institut Matematyki. Zeszyty Naukowe. Matematyka i jej Zastosowanie. (Warsaw)

Zeszyty Nauk. Univ. Jagiello. Prace Fiz. Zeszyty Naukowe Uniwersytetu Jagiellońskiego. Prace Fizyczne. (Kraków)

Zeszyty Nauk. Univ. Jagiello. Prace Mat. Zeszyty Naukowe Uniwersytetu Jagiellońskiego. Prace Matematyczne. (Matematyka, Fizyka, Chemia) (Kraków)

Zeszyty Nauk. Univ. Lódz. Nauki Mat. Przyrod. Ser. II. Zeszyty Naukowe Uniwersytetu Lódzkiego. Nauki Matematyczno Przyrodnicze. Seria II. (Lódź)

ŽETF Pis'ma. Akademija Nauk SSSR. ŽETF. Pis'ma v Redakciju. (Moscow) (Translated as *JETP Lett.*)

Zhongguo Kexue Jishu Daxue Xuebao. (Peking) See *J. China Univ. Sci. Techn.*

## JOURNALS IN TRANSLATION

*Acta Mech. Sinica* (New York). *Acta Mechanica Sinica*. (New York) (Translation of *Acta Mech. Sinica* (Peking))

*Astrophysics*. *Astrophysics*. (A translation of *Astrofizika* of the Academy of Sciences of the Armenian SSR). (New York) (Translation of *Astrofizika*)

*Automat. Remote Control*. *Automation and Remote Control*. (A translation of *Automatika i Telemekhanika*, a publication of the Academy of Sciences of the USSR). (Pittsburgh, Pa.) (Translation of *Avtomat. i Telemeh.*)

*Chinese J. Phys.* (Peking) *Chinese Journal of Physics* (Peking). (A translation of *Acta Physica Sinica* of the Chinese Academy of Sciences, Peking). (New York) (Translation of *Acta Phys. Sinica*)

*Chinese Math.*—*Acta*. *Chinese Mathematics*. Translation of *Acta Mathematica Sinica*. (Providence, R.I.) (Translation of *Acta Math. Sinica*)

*Cosmic Research*. *Cosmic Research*. (A translation of *Kosmicheskie Issledovaniya* of the Academy of Sciences of the USSR). (New York) (Translation of *Kosmich. Issled.*)

*Cybernetics*. *Cybernetics*. (New York) (A translation of *Kibernetika* (Kiev))

*Differential Equations*. *Differential Equations*. (New York) (Translation of *Differencial'nye Uravneniya*)

*Electrical Engrg. Japan*. *Institute of Electrical and Electronics Engineers*. *Electrical Engineering in Japan*. (A translation of *Denki Gakkai Zasshi* of the Institute of Electrical Engineers of Japan). (New York) (Translation of *Denki Gakkai Zasshi*)

*Electron. Commun. Japan*. *Institute of Electrical and Electronics Engineers*. *Electronics and Communications in Japan*. (A translation of *Denki Tsushin Gakkai Zasshi* of the Institute of Electrical Communication Engineers of Japan). (New York) (Translation of *Denki Tsushin Gakkai Zasshi*)

*Engrg. Cybernetics*. *Engineering Cybernetics*. English Edition of *Tekhnicheskaja Kibernetika*. (New York) (Translation of *Izv. Akad. Nauk SSSR Tehn. Kibernet.*)

*Izv. Acad. Sci. USSR Atmospher. Ocean. Phys.* *Izvestiya Academy of Sciences USSR. Atmospheric and Oceanic Physics*. (Washington, D.C.) (Translation of *Izv. Akad. Nauk SSSR Ser. Fiz. Atmosfer. i Okeana*)

*Izv. Acad. Sci. USSR Phys. Solid Earth*. *Izvestiya Academy of Sciences USSR. Physics of the Solid Earth*. (Washington, D.C.) (Translation of *Izv. Akad. Nauk SSSR Ser. Fiz. Zemli*)

*J. Appl. Math. Mech.* *Journal of Applied Mathematics and Mechanics*. (Translation of the Soviet journal *Prikladnaja Matematika i Mekhanika*). (New York) (Translation of *Prikl. Mat. Meh.*)

*JETP Lett.* *JETP Letters*. (A translation of *JETP [ŽETF] Pis'ma v Redaktsiyu* [Redakciju] of the Academy of Sciences of the USSR). (New York) (Translation of *ŽETF Pis'ma*)

*Magnetohydrodynamics*. *Magnetohydrodynamics*. (A translation of *Magnitnaya Gidrodinamika* of the Academy of Sciences of the Latvian SSR). (New York) (Translation of *Magnit. Gidrodinamika*)

*Moscow Univ. Bull. Ser. III Phys. Astronom.* *Moscow University. Moscow University Bulletin. Series III. Physics and Astronomy*. (Acton, Mass.) (Translation of *Vestnik Moskov. Univ. Ser. III Fiz. Astronom.*)

*Probleme der Kybernetik*. *Problems der Kybernetik*. (Berlin) (Translation of *Probleme Kibernet.*)

*Problems of Information Transmission*. *Problems of Information Transmission*. (New York) (Translation of *Problemy Peredachi Informacii*)

*Proc. Steklov Inst. Math.* *Proceedings of the Steklov Institute of Mathematics*. (Providence, R.I.) (Translation of *Trudy Mat. Inst. Steklov.*)

*Radio Engrg. Electron. Phys.* *Radio Engineering and Electronic Physics*. (Translation of *Radiotekhnika i Elektronika*, a U.S.S.R. Academy of Sciences Publication). (New York) (Translation of *Radiotekhn. i Elektron.*)

*Russian Math. Surveys*. *Russian Mathematical Surveys*. (A translation of the survey articles and of selected biographical articles in *Uspehi Matematicheskikh Nauk*). (London) (Translation of *Uspehi Mat. Nauk*)

*Soviet Appl. Mech.* *Soviet Applied Mechanics*. (New York) (Translation of *Prikladn. Mekh.*)

*Soviet Astronom. AJ*. *Soviet Astronomy. AJ*. (A translation of *Astronomicheskij Zhurnal* of the Academy of Sciences of the USSR). (New York) (Translation of *Astronom. Z.*)

*Soviet J. Nuclear Phys.* *American Institute of Physics. Soviet Journal of Nuclear Physics*. (New York) (Translation of *Jadernaja Fiz.*)

*Soviet Math. Dokl.* *Soviet Mathematics. Doklady*. (A translation of the mathematics section of *Doklady Akademii Nauk SSSR*). (Providence, R.I.) (Translation of mathematics section of *Dokl. Akad. Nauk SSSR*)

*Soviet Physics Acoust.* *Soviet Physics. Acoustics*. (A translation of *Akusticheskij Zhurnal* of the Academy of Sciences of the USSR). (New York) (Translation of *Akust. Z.*)

*Soviet Physics Cryst.* *Soviet Physics. Crystallography*. (A translation of the journal *Kristallografiya* of the Academy of Sciences of the USSR). (New York) (Translation of *Kristallografiya*)

*Soviet Physics Dokl.* *Soviet Physics. Doklady*. (A translation of the physics sections of *Doklady Akademii Nauk SSSR*). (New York) (Translation of physics sections of *Dokl. Akad. Nauk SSSR*)

*Soviet Physics JETP*. *Soviet Physics. JETP*. (A translation of *Z. Èksperimental'nol i Teoreticheskoi Fiziki* of the USSR). (New York) (Translation of *Z. Èksper. Teor. Fiz.*)

*Soviet Physics Solid State*. *Soviet Physics. Solid State*. (A translation of the journal *Fizika Tverdogo Tela* of the Academy of Sciences of the USSR). (New York) (Translation of *Fiz. Tverd. Tela*)

*Soviet Physics Tech. Phys.* *Soviet Physics. Technical Physics*. (A translation of *Žurnal Tekhnicheskoi Fiziki* of the Academy of Sciences of the USSR). (New York) (Translation of *Z. Tehn. Fiz.*)

*Soviet Physics Uspekhi*. *Soviet Physics. Uspekhi*. (A translation of *Uspehi Fizicheskikh Nauk* (Advances in the Physical Sciences) of the Academy of Sciences, U.S.S.R.). (New York) (Translation of *Uspehi Fiz. Nauk*)

*Soviet Radio Engrg.* *Soviet Radio Engineering*. (A translation of *Izvestiya VUZ Radiotekhnika* of the Higher Educational Institute of the USSR). (New York) (Translation of *Izv. Vyš. Učebn. Zaved. Radiotekhn.*)

*Soviet Radiophys.* *Soviet Radiophysics*. (A translation of the *Izvestija Vysših Učebnyh Zavedenij. Radiofizika* of the Ministry of Higher Education of the USSR). (New York) (Translation of *Izv. Vyš. Učebn. Zaved. Radiofizika*)

*Theor. Probability Appl.* *Theory of Probability and its Applications*. (An English translation of the Soviet journal *Teoriya Verojatnostei i ee Primenenija*). (Philadelphia, Pa.) (Translation of *Teor. Verojatnost. i Primenen.*)

*Trans. Moscow Math. Soc.* *Transactions of the Moscow Mathematical Society*. (Providence, R.I.) (Translation of *Trudy Moskov. Mat. Obšč.*)

*U.S.S.R. Comput. Math. and Math. Phys.* *U.S.S.R. Computational Mathematics and Mathematical Physics*. (Oxford) (Translation of *Z. Vychisl. Mat. i Mat. Fiz.*)

## ERRATA AND ADDENDA

### VOLUME 18

p. 206: Dickinson, D. J.; Pollak, H. O.; Wannier, G. H.

In line 7 from the bottom, read "sufficient" for "cufficient".

### VOLUME 25

#176: Evgrafov, M. A.

In the bibliographical data, read 26 for 36.

#260: Klokov, Ju. L.

Insert after the author's name [Klokovs, J.].

### Index for Volume 25

On p. 1173, the name "Ju. L. Klokov" should be changed to "J. Klokovs", and a cross-reference entered for "Ju. L. Klokov".

### VOLUME 29

#2644: Bognár, J.

In the title, read "non-negativity" for "negativity".

#3227: Jordan, Pascual; Ehlers, Jürgen; Kundt, Wolfgang;

Ozsváth, István; Sachs, Rainer K.; Trümper, Manfred

Delete all authors' names except that of István Ozsváth. Also, the first sentence of the title should be the last, i.e., should follow "VI".

#5105: Constantinescu, F.

A letter from the author to the reviewer makes it clear that limits "as  $x_1, x_2, \dots, x_k$  tend to  $c$  independently" are intended as limits where first  $x_1 \rightarrow c$ , then  $x_2 \rightarrow c, \dots$ , and finally  $x_k \rightarrow c$ . With this interpretation of the multiple limit, the paper contains the following result. A dis-

tribution  $f$  has the value 0 at the point  $x=c$  if and only if there exist a neighborhood  $N$  of  $c$ , an integer  $k \geq 0$  and a continuous function  $F$  such that  $f = D^k F$  on  $N$  and  $[c, x_1, \dots, x_k] \rightarrow 0$  as  $x_1 \rightarrow c, \dots, x_k \rightarrow c$ . Here  $[c, x_1, \dots, x_k]$  denotes the divided difference of  $F$  with base points  $c, x_1, \dots, x_k$ .

### Index for Volume 29

On p. 1331, delete the third entry for Jürgen Ehlers; on p. 1350, delete the third entry for P. Jordan; on p. 1357, delete the fourth entry for W. Kundt; on p. 1386, delete the third entry for Rainer K. Sachs; on p. 1401, delete the entry for Manfred Trümper.

On p. 1318, under Bognár, J., read "non-negativity" for "negativity".

### VOLUME 30

#290: Èl'sgol'c, L. È.

In the title read "deviating" for "retarded".

#3618: DeSilva, C. N.; Cohen, H.

Read [Cohen, Harley] for [Cohen, Hirsh G.].

### Index for Volume 30

On p. 1101, read Cohen, Harley for Cohen, Hirsh G.; on p. 1104, under DeSilva, C. N., read Cohen, Harley. On p. 1107, under Èl'sgol'c, L. È. 290, read "deviating" for "retarded".

### VOLUME 31

#1154: Schützenberger, M. P.

The parenthetical remark should be omitted since it is false, as the counterexample at the end of the paper shows.

#3216: van Moeseke, Paul

In the heading, insert "cuad. 1," before the paging.

#4121: Vegas Pérez, Angel

In the heading, insert "cuad. 1," before the paging.

#4136: Bennett, B. M.; Birch, B.

In the heading, insert "cuad. 1," before the paging.

#5153: Jucovič, Ernest

The language of the article is Slovak.

#6258: Fz. de Trocóniz, Antonio

In the heading, insert "cuad. 1," before the paging.

#6314: Krishnaiah, P. R.; Hagis, Peter, Jr.; Steinberg, Leon

In the heading, insert "cuad. 1," before the paging.

## VOLUME 32

## #1733: Maravall Casesnoves, Dario

In the heading, insert "cuad. 2-3," before the paging.

## #1797: Bejar Alamo, Juan

In the heading, insert "cuad. 2-3," before the paging.

## #2031: Widder, D. V.

In the heading, read "1966" for "1965".

## #2730: Clark, Colin

In the heading, read "1966" for "1965".

## #3877: Gutiérrez Cabria, Segundo

In the heading, insert "cuad. 2-3," before the paging.

## #4318: Haimov, H. B.

The author's first initial should be N.

## #4382: Sather, D.

In the heading, read "1966" for "1965/66".

## #4544: Hadeler, K. P.

In the heading, read "1966" for "1965".

## #4578: Rothe, E. H.

In the heading, read "1966" for "1965".

## #4926: Roseman, Joseph J.

In the heading, read "1966" for "1965".

## #4930: Knowles, James K.

In the heading, read "1966" for "1965".

## #5081: Shenk, Norman A., II

In the heading, read "1966" for "1965".

## #5536: Kaucky, Josef

In the identity, replace  $x$  by  $k$ .

## #5599: Froda, Alexandre

A proof of the extended criterion has been published by the author in C. R. Acad. Sci. Paris **261** (1965), 3012-3015 [MR 33 #5565].

## #6750: Sternberg, Eli; Knowles, James K.

In the heading, read "1966" for "1965".

## #6759: Cohen, H.; DeSilva, C. N.

Read [Cohen, Harley] for [Cohen, Hirsh G.].

## #7678: Costinescu, Olga

The reviewer's attention has been called to a paper by W. H. Young [Bull. Sci. Math. (2) **52** (1928), 265-280], evidently overlooked by the author, which is considerably more general than the work that she cites, and essentially contains her results.

## #8221: Jenkins, Howard; Serrin, James

In the heading, read "1966" for "1965/66".

## #8371: Borghi, Osvaldo

In the heading, insert "cuad. 2-3," before the paging.

## #8381: Vegas, Angel

In the heading, insert "cuad. 2-3," before the paging.

## #8568: Cohen, H.

Insert [Cohen, Harley] after the author's name.

## #8571: Singh, M.; Pipkin, A. C.

In the heading, read "1966" for "1965".

## #8621: Knightly, George H.

In the heading, read "1966" for "1965".

## Index for Volume 32

On p. 1604, read Cohen, Harley for Cohen, Hirsh G. (also under Cohen, H.); on p. 1609, under DeSilva, C. N., read Cohen, Harley. On p. 1628, read Haimov, N. B. for Haimov, H. B. On p. 1753 of the Errata and Addenda, under Volume 29, #4719, the author's name should be A. L. Andrew. On p. 1754, delete the correction for MR 32 #572.

## VOLUME 33

## #55: Frucht W., Roberto; Rota, Gian-Carlo

In the heading, read (Spanish. English summary).

## #245: Friedman, N.; Katz, M.

In the heading, read "1966" for "1965".

## #442: Shinbrot, Marvin; Kaniel, Shmuel

In the heading, read "1966" for "1965/66".

## #807: Krishnaiah, P. R.; Armitage, J. V.

In the heading, insert "cuad. 2-3," before the paging.

## #2526: Tauts, A.

In the third sentence, read "decision" for "iecosion", and "substituends" for "substitiends".

## #2570: Muracchini, Luigi; Ghirlanda, Anna Maria

It has been brought to the notice of the reviewer that the problem discussed in this paper was solved by F. Harary and R. Z. Norman [Rend. Circ. Mat. Palermo (2) **9** (1960), 161-168; MR 24 #A693].

## #2629: Hallier, Nicole

The left side of the formula should read  $x^{-1}(xD^p)$ .

## VOLUME 33 cont.

## #4973: Cohn, M. Harry

Insert [Cohn, Harry] after the author's name.

## #5329: Henderson, D.

There is an editorial error in the first reference: read "C. Hurst" in place of "the reviewer".

## #5410: Gladki, A. V.

The reference in the last line should be "same Sem. 6 (1967), no. 1, 113". The editors of MR are responsible for this mistake.

## #5656: Koh, Kwangil; Mewborn, A. C.

In the definition of weakly transitive ring, the following condition should be added:  $M_R$  is uniform.

## #6009b: Bailey, Paul; Waltman, Paul

In the heading, read "1966" for "1965/66".

## #6215: Szabados, I.

The author's initial should be J.

## #6254: Zuk, V. V.

In the title, read "by a bounded" for "bounded by a".

## #6515: Lingenberg, Walter

In the last sentence, instead of "la relation  $\beta = \gamma$ " read "une relation  $\beta = \gamma = f(u + v)$ ".

## #6775: Bell, C. B.; Bellot, F.

In the heading, insert "cuad. 2-3," before the paging.

## #6807: D'jakonov, E. G.

In the first reference, from the year read "no. 5 (119), 197-198".

## #6936: Fife, Paul C.

In the heading, read "1966" for "1965/66".

## #7264: Frucht W., Roberto; Rota, Gian-Carlo

In the heading, read (Spanish. English summary).

## #7342: Ono, Takashi

On line 10 from the bottom, the exponent of  $\pi$  should be  $l + N$ .

## #7344: Horrocks, G.

In line 7, read  $\mathfrak{M}$  for  $M$ .

## #7895: Weidmann, Joachim

In the fourth sentence, replace " $K_d(x)$  is in  $\mathcal{L}_2$ " by " $K_d(x) \leq f(x)$ , where  $f \in \mathcal{L}_1$ ".

## #8067: Csörgő, Miklós

The last line should read as follows: "(1956), 177-238; MR 18, 943".

## Index for Volume 33

On p. 1466, read Cohn, Harry for Cohn, M. Harry and insert a cross-reference under Cohn, M. Harry. On p. 1555, read Thomas, Johannes for Thomas, J. On p. 1568, under Zuk, V. V. 6254, read "by a bounded" for "bounded by a".

## VOLUME 34

## #45: Gladki, A. V.

In heading, page of errata should be 94.

## #205: Malliavin, Marie-Paule

Insert [Malliavin-Brameret, Marie-Paule] after the author's name.

## #279: Heyer, Herbert

The reviewer is indebted to J. L. Kelley for the following historical note. The theorem stated in the review is due, for the compact case, to Y. Kawada and K. Itô [Proc. Phys.-Math. Soc. Japan (3) 22 (1940), 977-998; MR 2, 223]. For general locally compact groups it was first obtained by J. L. Kelley [Illinois J. Math. 2 (1958), 214-223; MR 21 #2179].

## #432: Iskender-Zade, Z. A.

Insert [Iskender-Zade, Z. A.] after the author's name.

## #622: Neuberger, J. W.

Read:  $\lim_{n \rightarrow \infty} \limsup_{\delta \rightarrow 0^+} \|(I - (t/n)A_\delta)^{-1}p - T(t)p\| = 0$ , where  $p \in S$  and  $A_\delta = [T(\delta) - I]/\delta$ .

## #641: Browder, Felix E.

In the heading, read "1966" for "1965/66".

## #884: Kagan, A. M.; Linnik, Ju. V.; Radhakrishna Rao, C.

The last author's name should be Rao, C. Radhakrishna.

## #921: Cohn, H.

Read [Cohn, Harry] for [Cohn, M. Harry].

## #1222: Fernández de Trocóniz, A.

In the heading, insert "cuad. 1," before the paging.

## #1314: Waterman, Alan G.; Bergman, George M.

In the first sentence, replace "reproduce" by "prove".

## #1355: Dawkins, Brian P.; Halperin, Israel

In (2), read  $\mathfrak{D}$  for  $D$ .

## #1387: Passman, Betty Lou; Passman, D. S.

For the first author's name, read Lou, Betty.

## #1414: Guterman, Martin M.

The author's definition of "normal system", more restrictive than the concept of "normal system in the sense of Kuroš" referred to in the review, is as follows. A complete chain  $C$  of  $G$  which contains  $\{1\}$  and  $G$  is called a normal system of  $G$  if for  $L, N \in C$ ,  $L \subsetneq N$ , there is a group  $M \in C$  such that  $L \subset M \subsetneq N$  and  $M \triangleleft N$ . The third sentence from the end of the review should read: "A normal system is a composition system if and only if its factors are simple."

## #1563: Čirka, E. M.

(2) should read: Ou bien l'ensemble  $f(\gamma)$  contient des points intérieurs pour chaque fonction  $f$  holomorphe sur  $\gamma$ , ou bien  $C(\gamma) = A(\gamma)$ .

## #1727: Shapiro, Victor L.

Read  $L^1$  instead of  $L'$ . In the displayed formula, read  $k_i$  instead of  $k$ .

## #1779: Hsiang Fu-cheng

Insert a comma between the author's names.

## #2024: Haefliger, André

In the last line of the first column, read "Plim" for " $P$  im".

## #2715: Hua Lo-keng; Wan Che-hsien

The title is mistranslated. It should be "The classical groups".

## #2911: Pahareva, N. A.; Virčenko, N. A.

Insert [Pahareva, N. O.] and [Virčenko, N. O.] after the respective authors' names.

## #3124: Chen Lu-san; Kuroda, Tadashi

Delete the first author's bracketed name.

## #3405: Baier, O.

The author of the article is H. Schaal. The article is dedicated to O. Baier on the occasion of his 60th birthday.

## #3628: Nagaev, A. V.

~~Insert [Nagaev, S. V.] after the author's name.~~

## #3654: Litvinov, A. N.

Insert [Litvinov, O. M.] after the author's name.

## #3791: Bojarčuk, A. K.

Insert [Bojarčuk, O. K.] after the author's name.

## #4322: Chamontin, Françoise; Goblot, M. Rémi

Delete "M." from the second author's name.

## #4953: Nagnibida, N. I.

Insert [Nagnibida, M. I.] after the author's name.

## #5512: Levinson, N.

In the first sentence, replace each of the vertical bars following the integral expressions by "subject to the conditions".

## #5859: Butts, H. S.; Smith, W. W.

In the second paragraph, the second sentence should read, "By imposing on  $D$  certain finiteness conditions, the authors show that  $(D^c)^*$  is an intersection, etc.;" the third sentence should be deleted.

## #7199a-b: Haque, Whaidul

The author's first name should be Wahidul.

## TRANSLITERATION OF CYRILLIC

Russian Letter Cap. Ital.	Mathematical Reviews; Zentralblatt für Mathematik	Bulletin Signalétique	Applied Mechanics Reviews	Science Abstracts	U.S. Library of Congress	Amer. Slavic & E. European Review	Journal of Symbolic Logic
А а	a	a	a	a	a	a	a
Б б	b	b	b	b	b	b	b
В в	v	v	v	v	v	v	v
Г г	g	g	g	g	g	g	g
Д д	d	d	d	d	d	d	d
Е е	e	e	e	e	e	e	e
Ё ё	ë	ë	ë	ë	ë	ë	ë
Ж ж	ž	ž	ž	ž	ž	ž	ž
З з	z	z	z	z	z	z	z
И и	i	i	i	i	i	i	i
Й ю	ij	ij	ij	ij	ij	ij	ij
К к	k	k	k	k	k	k	k
Л л	l	l	l	l	l	l	l
М м	m	m	m	m	m	m	m
Н н	n	n	n	n	n	n	n
О о	o	o	o	o	o	o	o
П п	p	p	p	p	p	p	p
Р р	r	r	r	r	r	r	r
С с	s	s	s	s	s	s	s
Т т	t	t	t	t	t	t	t
У у	u	u	u	u	u	u	u
Ф ф	ф	f	f	f	f	f	f
Х х	х	kh	kh	kh	kh	kh	х
Ц ц	ц	c	c	ts	ts	ts	ц
Ч ч	ч	ch	ch	ch	ch	ch	ч
Ш ш	ш	sh	sh	sh	sh	sh	ш
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*Other Mathematical Reviews* conventions are as follows:

The Ukrainian I, i are transliterated І, І, respectively.

The Ukrainian І, і are reproduced without change.

The Serbian **B**, **Ђ** are transliterated **B**, **Ђ**, respectively.

The Serbian **B**, **h** are transliterated **C**, **č**; the Serbian **U**, **u** are transliterated **Dž**, **đ**.

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**STATEMENT OF OWNERSHIP, MANAGEMENT AND CIRCULATION**  
Act of October 23, 1962: Section 4369, Title 39, United States Code

1. *Date of filing:* September 27, 1967
2. *Title of publication:* Mathematical Reviews
3. *Frequency of issue:* Twelve times per year
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Publisher: American Mathematical Society, P.O. Box 6248, Providence, Rhode Island 02904;  
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7. *Owner:* None
8. *Known bondholders, mortgagees and other security holders owning or holding 1 percent or more of total amount of bonds, mortgages or other securities:*  
None
9. Paragraphs 7 and 8 include, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for which such trustee is acting, also the statements in the two paragraphs show the affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner. Names and addresses of individuals who are stockholders of a corporation which itself is a stockholder or holder of bonds, mortgages or other securities of the publishing corporation have been included in paragraphs 7 and 8 when the interests of such individuals are equivalent to 1 percent or more of the total amount of the stock or securities of the publishing corporation.

I certify that the statements made by me above are correct and complete.—Gordon L. Walker

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